
GAM15 ACCTCTTTCTGATGGAGTCG 1 TGATGGAGTC 350 TTTCT- T TC AAG CT TC TCTTC T CTCACAA

GA GGAG GTAAAA TTTTAT CTT TC GA TAAAAAAGTTTTATCTCTTT GTAAAAAAGT С GGT

CTCTCTTCGATGGTCTCACA **TTTA**

AAAATATTAAACCTCTTTCT CT TCTC TATTTT AAAATG GAG AG CT CCA GATGGAGTCGTAAAAAAGTT CTTCCT T --GAA CT GT TCTTT - AATTATA TTATCTCTTTCTCCTTCGAT

GGT

GAM16 ACCTCTTTCTGATGGAGTCG 2 TGATGGAGTC 351 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TC GA GAG GTAAAA TTTTAT CTT TC GA TAAAAAAGTTTTATCTCTTT GTAAAAAAGT GGT Α

CTCTCTTCGATGGTCTCACA **TTTA**

AAAATATTAAACCTCTTTCT CT TTC TATTTT AAAATG GAG AG CT CCA GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA TTATCTCTTTCTCTCTCGA

TGGT

Α

TGGT

GGT

GAM17 ACCTCTTTCTGATGGAGTCG 3 TGATGGAGTC 352 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TC GA GAG GTAAAA TTTTAT CTT TC TAAAAAAGTTTTATCTCTTT GTAAAAAAGT

CTCTCTTCGATGGTCTCACA

TTTA AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA CT GT TCTTT - AATTATA GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA TTATCTCTTTCTCTCTCGA

TTTCT TG TC GAM18 ACCTCTTTCTGATGGAGTCG 4 TGATGGAGTC 353 AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GGT Α

CTCTCTTCGATGGTCTCACA **TTTA**

AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA TTATCTCTTTCTCTCTCGA

TGGT

TGATGGAGTC 354 TTTCT TG TC AAG CT TC TCTTC GAM19 ACCTCTTTCTGATGGAGTCG 5 T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GGT Α

CTCTCTTCGATGGTCTCACA TTTA 11 11 111 11111 11111 111 11 11 111

AAAATATTAAACCTCTTTCT CT TTC TATTTT AAAATG GAG AG CT CCA GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA

TTATCTCTTTCTCTCTCGA

TGGT

GAM20 ACCTCTTTCTGATGGAGTCG 6 TGATGGAGTC 355 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT Α TTTA CTCTCTTCGATGGTCTCACA AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA **TTATCTCTTTCTCTCTCGA** TGGT GAM21 ACCTCTTTCTGATGGAGTCG 7 TGATGGAGTC 356 TTTCT TG TC AAG CT TC TCTTC T CTCACAA TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT Α CTCTCTTCGATGGTCTCACA TTTA AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA **TTATCTCTTTCTCTCTCGA TGGT** GAM22 ACCTCTTTCTGATGGAGTCG 8 TGATGGAGTC 357 TTTCT TG TC AAG CT TC TCTTC T CTCACAA TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA Α GGT CTCTCTTCGATGGTCTCACA TTTA AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA TTATCTCTTTCTCTCTCGA TGGT GAM23 ACCTCTTTCTGATGGAGTCG 9 TGATGGAGTC 358 TTTCT TG TC AAG CT TC TCTTC T CTCACAA TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT Α CTCTCTTCGATGGTCTCACA TTTA AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA TTATCTCTTTCTCTCTCGA TGGT TTTCT TG TC GAM24 ACCTCTTTCTGATGGAGTCG 10 TGATGGAGTC 359 AAG CT TC TCTTC T CTCACAA GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA TAAAAAAGTTTTATCTCTTT Α GGT CTCTCTTCGATGGTCTCACA TTTA AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA **TTATCTCTTTCTCTCTCGA** TGGT GAM25 ACCTCTTTCTGATGGAGTCG 11 TGATGGAGTC 360 TTTCT TG TC AAG CT TC TCTTC T CTCACAA TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA Α GGT CTCTCTTCGATGGTCTCACA TTTA Ш AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA

CTTCT CT TC

GAA

CT GT TCTTT - AATTATA

GATGGAGTCGTAAAAAAGTT

```
TTATCTCTTTCTCTCTCGA
TGGT
```

Α

GAM26 ACCTCTTTCTGATGGAGTCG 12 CGTAAAAAAG 361 TTTCT TG TC AAG CT C TTC-T CTCACAA

TAAAAAAGTTTTATCTTTCT TTTTATCTTT TC GA GAG GTAAAA TTTTAT TTCTTC GA GGT A

TGGAGTCGTAAAAAAGTTTT CTTCT CT TC GAA CT T TCTTT - AATTATA
ATCTCTTTCTCTCTCGATG
GT

GAM27 GATGGAGTCGTAAAAAAGTT 13 TGATGGAGTC 362 T TC AAG -- T TCCTTC T CTCACAA

TTATCTCTTCCCTTCGAT GTAAAAAAGT GA GGAG GTAAAA TTTTAT CTCT TC GA GGT

GAM28 GATGGAGTCGTAAAAAAGTT 14 TGATGGAGTC 363 T TC AAG -- T TCCTTC T CTCACAA

TTATCTCTTCCCTTCGAT GTAAAAAAGT GA GGAG GTAAAA TTTTAT CTCT TC GA GGT

GAM29 GATGGAGTCGTAAAAAAGTT 15 TGATGGAGTC 364 T TC AAG CT TC TCTTC T CTCACAA

TTATCTCTTCTCTCGA GTAAAAAGT GA GGAG GTAAAA TTTTAT CTT TC GA GGT A

GAM30 GATGGTCTCATAAAAAAAGT 16 ATAAAAAAAG 365 G TCATAAAA TTTTAC ATTCT-CTCTCTT TG

TTTACAAAAATATTTTTATT TTTTACAAAA AT GTC AAAG AAAAATATTTTT CTTT TGA G

CTCTTTCTCTCTTTGATGGT ATAT 11 111 Ш Ш Ш CTCATAAAAAAAGTTTTACA TG TAG TTTTTATAAAAA GAAA ACT / TTTC AAAATATTTTTATTCTCTTT G TTTCTCTC TCTTA-CATTTT AAAAT-- CT **CTCTCTTTGATGGTC**

GAM31 GGAGTCATAAAATATTTTA 17 TAAAATATTT 366 TC A T- T TCTCTTC T CTCACAA TTCTCTTTCTCTCTCGATG TTATTCTCTT GGAG ATAAAAT TTTTTAT CTCT TC GA GGT CTCTTTCTGATGGAGTCGTA TCTC TATTTTG AAAAATG GAGG AG
AAAAAGTTTTATCTCT -- AATTATA

GAM32 TTAAACCTCTTTCTGATGGA 18 TGATGGAGTC 367 CTTTCT TG TC AAG -- T TCCTTC T CTCACAA

CT CCA

Α

GTCGTAAAAAAGTTTTATCT GTAAAAAAGT GA GAG GTAAAA TTTTAT CTCT TC GA

GGT A

CTTTCTCCTTCGATGGTCTC TTTA || || || || || || || || || || ||

ACAAAAATATTAAACCTCTT CT TTC TATTTT AAAATG GAGG AG CT CCA A

TCTGATGGAGTCGTAAAAAA TCTTTC CT TC GAA CT T TCTTT- - AATTATA

GTTTTATCTCTTTCTCCTTT

CTCACAAAAA

GAM33 TTAAACCTCTTTCTGATGGA 19 TGATGGAGTC 368 CTTTCT TG TC AAG -- T TCCTTC T CTCACAA

GTCGTAAAAAAGTTTTATCT GTAAAAAAGT GA GAG GTAAAA TTTTAT CTCT TC GA

GGT A

CTTTCTCCTTCGATGGTCTC TTTA || || || || || || || || || || ||

ACAAAAATATTAAACCTCTT CT TTC TATTTT AAAATG GAGG AG CT CCA A

TCTGATGGAGTCGTAAAAAA TCTTTC CT TC GAA CT T TCTTT- - AATTATA

GTTTTATCTCTTTCTCCTTT

CTCACAAAAA

GAM34 TTTTCTTTGGTACAAAATT 20 TCTTTGGTAC 369 T TT CACAA ---- CA A TCACACAAGTTTTTATACAG AAAATTTCAC TTTTTCTT GGTACAAAA TCA GTTTT TATA

GACAA T

TTTAAAACATTGACTTTTGT AAAAAGAA TCATGTTTT AGT CAAAA ATAT CTGTT T

ACTAAGAAAAA - C- TA--- TTTT AC C

GAM35 AGAGATAAAACTTTTTTACG 21 TGAGACCATC 370 -- AC ----- A A AAGA A T ACTCCATCAGAAAGAGGTTT GAAGGAGACT AGAGATA AAACTTTTTT GA CTCC TC GA

GGTTT ATA T

GAAGGAGACTCCATCAGAAA TTTTTAT TTTGGAGAAA CT GAGG AG CT CCAGA

TGT T

GAGGTTTAATATTTTT AA GA ACCTCA A - A--- G T

GAM36 ATAAAAATATTTTGTAAAA 22 AATATTTTTG 371 AAAA A-- GA

CTTTTTTTATGAGACCATCA TAAAACTTTT ATAAAAATATTTTTGT CTTTTTTT TGA C

ATATTTTGT TGTTTTTATAAAAATA GAAAGAGA ACT /

AGA- GAA AC

GAM37 ATAAAAATATTTTTGTAAAA 23 AATATTTTTG 372 AAAA A-- GA

CTTTTTTTATGAGACCATCA TAAAACTTTT ATAAAAATATTTTTGT CTTTTTTT TGA C

 GAM38 ATGGATTTTACTAGATCATT 24 TTATACGATC 373 - TTT - ATTT- ACC
TATATACCAAAAAATATTAT TACGTTTTAT ATG GAT AC TAGATC ATAT A
ACGATCTACGTTTTATTATA TATA ||| ||| || ||||| ||||

T TAT TTA TG ATCTAG TATA A

A TTT C CATAT AAA

GAM39 CTTTTTTACGACTCCATCAG 25 CATCAGAAAG 374 A CTCCA G G T A G GACCA - AAAGA

AAAGAGGTTTAATATTTTTG AGGTTTAATA T CGA TCA AAAGA GTT AAT TTTTT TGA TCG AAGAGAG G

AGAGATAAAACTTTTTTACG AGCT AGT TTTTT TAA TTG AGAAA ACT AGC TTTTTTC

Α

ACTCCATCAGAAAGAGGTTT - ACCAG G A T G G ACCTC A AAAAT

AATATTTTTGTGAGACCATC GAAGAGAG

GAM40 CTTTTTTACGACTCCATCAG 26 CATCAGAAAG 375 A CTCCA G G T A G GACCA - AAAGA

AAAGAGGTTTAATATTTTTG AGGTTTAATA T CGA TCA AAAGA GTT AAT TTTTT TGA TCG AAGAGAG G

AGAGATAAAACTTTTTTACG A GCT AGT TTTTT TAA TTG AGAAA ACT AGC TTTTTTC

Α

ACTCCATCAGAAAGAGGTTT - ACCAG G A T G G ACCTC A AAAAT AATATTTTTGTGAGACCATC

GAAGAGAG

GAM41 CTTTTTTACGACTCCATCAG 27 CATCAGAAAG 376 A CTCCA G G T A G GACCA - AAAGA

AAAGAGGTTTAATATTTTTG AGGTTTAATA T CGA TCA AAAGA GTT AAT TTTTT TGA TCG AAGAGAG G

AGAGATAAAACTTTTTTACG AGCT AGT TTTTT TAA TTG AGAAA ACT AGC TTTTTTC

Α

ACTCCATCAGAAAGAGGTTT - ACCAG G A T G G ACCTC A AAAAT

AATATTTTTGTGAGACCATC

GAAGAGAG

GAM42 CTTTTTTACGACTCCATCAG 28 CATCAGAAAG 377 A CTCCA G G T A G GACCA - AAAGA

AAAGAGGTTTAATATTTTTG AGGTTTAATA T CGA TCA AAAGA GTT AAT TTTTT TGA TCG AAGAGAG G

AGAGATAAAACTTTTTTACG A GCT AGT TTTTT TAA TTG AGAAA ACT AGC TTTTTTC

Α

ACTCCATCAGAAAGAGGTTT - ACCAG G A T G G ACCTC A AAAAT AATATTTTTGTGAGACCATC

```
GAAGAGAG
GAM43 CTTTTTTACGACTCCATCAG 29 CATCAGAAAG 378 A CTCCA G G T A G GACCA -
AAAGA
   AAAGAGGTTTAATATTTTTG
                         AGGTTTAATA
                                      T CGA TCA AAAGA GTT AAT TTTTT TGA TCG
AAGAGAG G
   TGAGACCATCGAAGAGAA
                          TTTT
                                    AGAGATAAAACTTTTTTACG
                                 A GCT
                                       AGT TTTTT TAA TTG AGAAA ACT
                                                                AGC TTTTTC
                                  - ACCAG G A T G G ACCTC A
   ACTCCATCAGAAAGAGGTTT
                                                                AAAAT
   AATATTTTTGTGAGACCATC
   GAAGAGAG
GAM44 CTTTTTTACGACTCCATCAG 30 CATCAGAAAG 379 A CTCCA G G T A G GACCA -
AAAGA
   AAAGAGGTTTAATATTTTTG
                         AGGTTTAATA
                                      T CGA TCA AAAGA GTT AAT TTTTT TGA TCG
AAGAGAG G
   TGAGACCATCGAAGAGAGAA
                          TTTT
                                   | | | | |
                                       AGAGATAAAACTTTTTTACG
                                 A GCT
                                       AGT TTTTT TAA TTG AGAAA ACT AGC TTTTTTC
 Α
   ACTCCATCAGAAAGAGGTTT
                                  - ACCAG G A T G G ACCTC A
                                                                AAAAT
   AATATTTTTGTGAGACCATC
   GAAGAGAG
GAM45 CTTTTTTACGACTCCATCAG 31 CATCAGAAAG 380
                                           A CTCCA G G T A G GACCA -
 AAAG
                         AGGTTTAATA
                                      TT CGA TCA AAAGA GTT AAT TTTTT TGA TCG
   AAAGAGGTTTAATATTTTTG
AAGAGAG A
   TGAGACCATCGAAGAGAA
                          TTTT
                                    11 111
                                        AGT TTTTT TAA TTG AGAAA ACT
   AGATAAAACTTTTTTACGAC
                                 AA GCT
                                                                 AGC
TTTTTTC T
   TCCATCAGAAAGAGGTTTAA
                                  - ACCAG G A T G G ACCTC A
                                                                 AAAA
   TATTTTTGTGAGACCATCGA
   AGAGAG
```

GAM46 GTGTGCCTGAATCGTTCGAT 32 TGAATAGAGT 381 TTCGAT C C С TAACCCTACTCATCCAATTT TATCGATTCA GTGTG CTGAATCG TAAC CTA TCATC T CAGATGAATAGAGTTATCGA GACA **TTCAGACACAC** CACAC GACTTAGC ATTG GAT AGTAG T T---- A A ACT Α

GAM47 TCAGAAAGAGGTTTAATATT 33 AGAGGTTTAA 382 AAA GTTT--GAGACCA- GA **TTTGTGAGACCATCGAAGAG** TATTTTTGTG TCAG GAG AATATTTTTGT TC A AGAAAGAGAATAAAAATATT **AGAC** IIII III Ш **TTATGACTCCATTGA** AGTT CTC TTATAAAAATA AG / AC- AGTATT AGAGAAAG AG

```
GAGACCATCAAAGAGAGAAA
                                   AGT TTTTTTC TGTTTTTATAAAAATA GAAAGAGA
ACT /
                                 CCAG A--
   GAGAATAAAAATATTTTTGT
                                           AAAA
                                                     AGA-
                                                            GAA AC
   ATCAAAGAGAG
GAM49 TTTTATGAGACCATCAAAGA 35 GAAGAGAGAA 384 ACCA AAG
                                                       AGA-
                                                                 AAAA---
   GAGAAAGAGAATAAAAATAT
                          AGAGAATAAA
                                         TCA AGAGAAAG ATAAAAATATTTTTGT
CTTTTTTTG TG G
   TTTTGTAAAACTTTTTTTGT
                         AATA
                                    111 1111111 11111111111111
                                                   AGT TTTTTTC TGTTTTTATAAAAATA
   GAGACCATCGAAGAGAGAAA
GAGAGAAGC AC A
   GAGAATAAAAATATTTTTGT
                                 CCAG A--
                                           AAAA
                                                     AGAGAAA
                                                                T C
   AAAACTTTTTTTTTTTGAGACC
   ATCAAAGAGAG
GAM50 TTTTTCTTAGTACAAAAGTC 36 TCAATGTTTT 385
                                                  G- AT--- AAAA
                                              Α-
                                                                   G
   AATGTTTTAAAATATATGGA
                         AAAATATATG TTTTTCTT GTACAAAA TCA GTTTT
TATATGGACAA A
   CAAGAATTTGTCTGTATAAA
                         GACA
                                   AACTTGTGTGAAATTTTGTA
                                 AAAAAGAA CATGTTTT AGT CAAAA ATATGTCTGTT A
                                   AA GTGTT ----
                                                    Т
   CCAAAGAAAAA
                               AC
GAM51 ATGTAGTAATCGTTGTCGTG 37 ATGGTTCTTT 386 C TG GTGTTCC-- TCC TTCTCC
T TTCT
   TTCCTGTTTCCTACTTCTCC
                         CCGTACAACA AT GT TC
                                                 TGTT TAC
                                                           AATCAT
ATAGATATT TCT A
                         TACT
   AATCATATAGATATTTTCTT
                                  IIII III
                                                TCTATCATGGATAATATTTG
                                 TA TA AG
                                           ACAA ATG
                                                    TTGGTA TGTTTATAA AGG /
   TAATGGTTCTTTCCGTACAA
                                  - GT ATTTGTCAT C-- CCTTTC
                                                          Α
   CATACTGTTTAGATGATATT
   GCGCAT
GAM52 GAATGACTCGTCCCTTAATA 38 TGACTCGTCC 387 GA G TAATA AGTAG - TCT
   GGCAGTAGGCTAGTATCTTT
                          CTTAATAGGC GAAT CTC TCCCT GGC GCTA GTA T
   TTTACGTAGTAATCGTCGTA
                          AGTA
                                   GGGAGAGAATTC
                             CTTA GAG AGGGA CTG TGAT CAT /
                        A- - TG--- CTAA- G TTT
GAM53 GAGATTGTATCAGTTTCGTA 39
                             GATTGTATCA 388 -- - T TA TGA G T
   GTCTTGAGTATTGGTATTAC
                          GTTTCGTAGT
                                      GAGATTGTA TC AGT TCG GTCT GTATTG TAT A
   TATATAGTATATAGATGTCG
                          CTTG
                                   ACGCTAGATATACAGTCTC
                                 CTCTGACAT AG TCG AGC TAGA TATGAT ATA C
                         AT A C TG TA- - T
```

--- T CTT TAA TTTCAGT

GAM55 AGTATGTTGTACGGAAAGAA 41 TGATTGGAGA 390 -- A GAAAGAA ATTACAAA A- TG--- AAGA CCATTACAAATATTATCCAT AGTAGGAAAC AGTA TGTTGT CG CC TATT TCCA

ATAGA A

GATAGAAAGAAATATCTAT AGGA |||| |||||||| || ||| ||||

ATGATTGGAGAAGTAGGAAA TCAT GCAACA GC GG ATGA AGGT TATCT /
CAGGAACACGACAACGATTA TA - ACAA--- ACAAAGG- AG TAGTA ATAA

СТ

GAM58 ACTGTATGCTCCTAGCGGAG 44 TGTATGCTCC 393 A - A AATCCTTCG T
TTAATCCTTCGTTGTTTCTA TAGCGGAGTT ACTGT TGCTC CT GCGGAGTT TTGT T
CAAAGTCTCTCGACTCCGCG AATC ||||| ||||||||| |||||||| |||||
AGAGAGTAACAGT TGACA ATGAG GA CGCCTCAG AACA C
- A G CTCTCTGA- T

GAM59 ATACGGAATATCTACGTCCA 45 TCATCGGGTG 394 C C------ GT - T T
TGTCATTATTGTCATCGGGT TATTCTCATT ATA GGAATAT TAC CC ATG CA T
GTATTCTCATTCATATTCTC CATA ||| ||||||| || || ||
TAT TAT TCTTATA ATG GG TAC GT A
C CTTACTCTT TG C T T

ACTTC GAM60 GCAATACTTCTGGTCTCGGA 46 TTCTGGTCTC 395 A ----- C TTAGGCGTCGTTACGTATAT GGATTAGGCG GCAAT TGGTCTCGGATT GG CGT G ATCCACCAATCCGAGACCAT TCGT Ш **TGATTGC** CGTTA ACCAGAGCCTAA CC GCA T GTT--- ACCTATATAT T

GAM61 GCTTTGCAAATTGTATATTA 47 ATCGATCATA 396 TT ATT TAT C C CCGC AAT A
TTT

TTGACATCGACCGCGTAATA TCTATATCAT GCT GCAA GTATAT TGA AT GA GT ATAGT
GAG T

TAGTAGAGTTTTATTCTCAT TATCGATCATATCTATATCA TCCATGTACTTGCTTAGT CCAT ||| ||| |||| ||| ||| || || ||

TGA CGTT CATGTA ACT TA CT TA TATTA CTC /

TT --- CCT A T ATAC GC- - TTA

GAM62 GTCGTTCTCGTTCAGAATCT 48 TTGAAGACTC 397 T GTTC A TCG - G G
TTCGCAGCATAAGTAGTATG TTCCAGAGAC GTCGT CTC AGA TCTT CAGC ATAAGTA TAT T

TCGATATCTTATCGTTGAA GAT ||||| ||| ||| ||| ||| |||

GACTCTTCCAGAGACGAT TAGCA GAG TCT AGAA GTTG TATTCAT ATA C

- ACCT C --- C - G

GAM63 TAACAATATTATTAGTTT 49 TTAATAATAT 398 ------ TA

ATATTACTGAATTAATAA AAAATTCCCA TAACAA TATATTATTAGTTTA T

TAAAATTCCCAATCTTGTTA ATCT ||||| |||||||

ATTGTT ATATAATAATTAAGT T

CTAACCCTTAAA CA

GAM64 TCTCAATAAGAAGATTAACG 50 TGGGGTTACT 399 C AA AACGAT-- CTA

ATTTCCATGTCTACATTATA CTAAATCGCT TCT AATAAG GATT TTCCATGT C

TGGGGTTACTCTAAATCGCT TGTT ||| ||||| ||||

TGTTTAGA AGA TTGTTC CTAA GGGGTATA /

T G- ATCTCATT TTA

GAM65 TGTATTCAGTCAGACAATGT 51 TTAGTAGCGT 400 A - AA TGACGTCG G C G

CTGACGTCGGCCACGGTATT GGCAATGACA TGT TTCAGT CAGAC TGTC GCCACG TATT

AGG A

GGCAATGACAGGGTCTGAAC ACA GGGTCA GTCTG ACAG CGGTGC ATGA TCC G

TGGGCACA C A GG TAA----- G T T

GAM66 TTGATATTACTTATAATAAC 52 TTAATTGTAA 401 T T--- CG - TG -- TT T

GATTTGTTTAATTTTTAGTT ATGATATTAT TTGATA TACTTA AATAA AT T TTTA ATT TAGT T

ATATTATTTTTTTAAGT GACTAT ATGAAT TTATT TA A AAAT TAA ATCA A

ATTATCAG T TTTT AT T GT GT TT T

GAM67 TTTAAACTTTGGCATATACA 53 AGATAACATA 402 CTT CATATACAA-- ACT

AGTCTATACTTTTAGTAGAT CCACACCATT TTTAAA TGG GTCTAT T

AACATACCACACCATTTTTT TTTT ||||| ||| |||

AAA AAATTT ACC TAGATG /

TTT ACACCATACAA ATT

GAM68 TTTCTTTCACGATGCATCT 54 ATAAGTGGAC 403 TC- GA- ----- GA CGT

TATTGAATGACGTTTTCTCA ATATAGATGC TTTCTTT AC TGCATCT TATT ATGA T

TAAGTGGACATATAGATGCA AGAA AAAGAAG TG ACGTAGA GTGA TACT / GAAGTAATGAAGAAA

TAA AAG TATACAG A- CTT

GAM69 TCGATGATACATGTATTAAA 55 TGATACATGT 404 A--- TGTA T TCC ATTAAAATAC TCG TGATACA TTAAAA ACTT G ATACTTTCCGAATAAGTCTT TTAAATATTGTATTAATTAT TTTC ||| |||||| ||||| AGT ATTATGT AATTTT TGAA / GA ATTA TATA C TAA

GAM70 TGATAATACTTAAAAAAATA 56 TAAAAATTAA 405 A AAAAAA ATCATTTAC AA A ATAATATCATTTACAATTAA ACAAATCGTT TGATA TACTT ATAATAAT AATT TAGT T ATTA ||||| |||| ||||| TAGTATAAACTAAAAATTAA ACAAATCGTTATTATAAGTA ACTAT ATGAA TATTATTG TTAA ATCA A ATATCA A ----- CTAAACAAA AA A

GAM71 AGCAGCGAACAACATCA 57 ATGGATTCTG 406 AACAAC T TAT CA TGTTTATGCT AGCAGCG AACA CAGA TTCATCGA T GATATTTCATCGACATTTTT GATGGATTCTGTGTTTATGC GTT |||||| ||| |||| |||| TGTT TTGTCGT TTGT GTCT AGGTAGTT / AT---- - T-- TT

GAM72 TAACAAGATTGGGAATTTTA 58 TAATATAAAC 407 GATTGGGAAT-TATTATTAATTCAGTAATAT TAATAATATA TAACAA TTTATATTATT T AAACTAATAATATTGTTA TTGT ||||| ||||||| ATTGTT AAATATAATGA / ATATAATAATC CT

GAM73 TACATGCTGACATCTAATGC 59 TCTCTAGCGT 408 C ATCTAATGCC AA -- C- T AATA CTGTATAACCATGAGAGCAT GGATACAGTC TACATG TGAC TGTAT CCATG AGAG ATC AC C CTACAATACATACCGTCGAT ACCG ATCTCTAGCGTGGATACAGT ATGTGC ACTG ACATA GGTGC TCTC TAG TG A C ----- -- GA TA C CCAT CACCGTGTA

GAM74 TCCGTTTTTATCAGTATGTA 60 TATCAGTATG 409 T------ TGTA- C AT T TATATCTATA TCCGTTTT ATCAGTA TAT TAT TAACG C TATCTATATTAACGTCGTCG TTGTAGTGAATAGTAGTTAT TTAA TGATCTATTATATGAAACGG AGGCAAAG TAGTTAT ATA GTG GTTGC G TATATTATC TGATG A AT T Α

TATGTTATTTGTATTTATCT AAATTTTTTA TGCT AATATGC GA GTA GTT TTTGTAT TATCTA

С

AAACAATACCTCTACCTCTA
GATATTATACAAAAATTTTT
TATTTCAGCATATTAAAGTA

TTTC |||| |||||| ||| ||| ||||

ATGA TTATACG CT TAT TAA AAACATA ATAGAT AA A T TTTT- - TT CTCCATCT

Т

GAM76 TTTTGATTACGATGTTATAA 62 TATAACATCG 411 ATGT TTAATT TG GAT

GAATGTAGTTAATTGATGTA TAATCAAAA TTTTGATTACGATGTTATAAGA AG GA TAT G

TCCTCTTATAACATCGTAAT AAAACTAATGCTACAATATTCT TC CT GTA /

CAAAA CCTT TC---- GT ATT

GAM77 GATTTTGTGATTTTCTTCC 63 ATAGTTAGAT 412 TTTT TTT TC A A

TAAACTGTTTACGTAAATAG AGAATATTCA GA GTGA TTCT CTAA CTGTTT C

TTAGATAGAATATTCATTAG TTAG || ||| ||| ||| ||| ||| TTC CT TACT AAGA GATT GATAAA G

TGAT TAT TA - T

GAM78 GCGTCAAATATTTCCCGTTT 64 TGGTATGTTC 413 CAA- CC TTA- GTCAAGA

AATATCGCATTTGTCAAGAT ACGATAAGTA GCGT ATATTT CGT ATATCGCATTT

AATAATAGAGTGTGGTATGT TAAT |||| |||||| ||| ||||||

TCACGATAAGTATAACG CGCA TATGAA GCA TATGGTGTGAG /

C ATAA TA CTTG ATAATAA

GAM79 TATCTTTTAAGAATTGTGGA 65 TCTTTTAAGA 414 C A GATAT GA TA

AACTATTACACAATTCTAAA TTAG ||| |||| |||| ||| |||

ATATA ATA AAAAT CTTAACAC ATC ATG T

T - ATT-- AA CA

GAM80 ATTTAGACTGATGTATGGGT 66 TTCTCATCAT 415 GA T T - GTTT

AATAGTGTTTGAAGAGCTCG CAGAATAAAT ATTTA CTGATG ATGGG AAT AGT G

TTCTCATCATCAGAATAAAT ||||| ||||| |||| |||

TAAAT GACTAC TACTC TTG TCG /

AA - - C AGAA

GAM81 AGCCGCTGAGTGGTAAACAA 67 CCGCTGAGTG 416 C ---- CAACA- AG

CAGAACAGATAGTTTATTAT GTAAACAACA AGC GCTGAG TGGTAAA GAAC A

CTTTACCAACACCCTCAGCC GAAC ||| ||||| ||||

GCT TCG CGACTC ACCATTT TTTG /

C CCACA CTATTA AT

TATCCTCAGTCATCTTGTCT ATATCCTCAG GACTAGAT AGTTTAA ATCC CAGT TTGTC G
AGAATGGCAAATCTAACTGC TCAT |||||||| ||||| ||||| |||||
GGGTTTAGGCTTTAGTTTAG TTGATTTG TCGGATT TGGG GTCA AACGG A

- C ATCTA TA

GAM83 GGATGTAAAATGTTGATGAT 69 TTGATGATAT 418 AAAAT A CTACATCGTT TTT
ATCTACATCGTTTGGATTTT CTACATCGTT GGATGT GTTG TGATAT TGGAT T

TATGTATCCACTTTAATAAT TGGA |||||| ||||| ||||||
ATCATAGCTGTAACATCC CCTACA CGAT ACTATA ACCTA A

ATGT- - ATAATTTC-- TGT

GAM84 GTCCGTATCCAGTCAACACT 70 TAGCTTTCAC 419 C CC C CA TA T
ATGTTAGCATTTCTGTCGAT TCATATGAC GTC GTAT AGT AA CTATGT GCA T
ATAGCTTTCACTCATATGAC ||| ||| ||| ||| ||| ||| |||
CAG TATA TCA TT GATATA TGT T
- C- C TC GC C

ATT--

GAM85 TAGCTTTCATAGTTAGATAC 71 CAGAAGTAGG 420 ----- GTCTCA- --- T A CT
AT
ATGGTCTCAGAAGTAGGATT ATTATGTAAC AGTTAG ATACATG GAA GTAGGATTA

GTAAC TCAG TCG A

ATGTAACATCAGCTTCGATA ATCA ||||| ||||||| ||| ||| ||| ||| |||

AAATGACTGGGTTATTTAGT TCAATT TATGTAC CTT CATTCTGAT TATTG GGTC

AGT A

TT

CTTACACATTCGCTCATACA GCCAG ATACTCG ACA T - -- AA
TGTATGACCGTTAACTACAG
AGTCTA

GAM87 TTCACCGTTTGCATGTTACC 73 CCGTTTGCAT 422 C C TTACCACTATCA AA ACTATCAACCGCATAATACA GTTACCACTA TTCAC GTTTG ATG ACCGCAT T ATGCGGTGTTTCCTTTGTCA TCAA ||||| ||||| ||| |||| ||| TCAAATTGTGAA AAGTG TAAAC TAC TGGCGTA A T - TGTTTCCTTTG- AC

GTTCGTCGACATCTATCTTT AAAGTC TTCTA CTA AGC GC TTG AC ATCGTCT C
GCATTCTGAAA TTACGT T C T - TTCCTTG - C

GAM89 TGATGCATTAATTTTGTAT 75 TGCATTAATT 424 C A A TTC CCTAAAA AAAA AATAAG

TGATTCTCAATCCTAAAAAC TTTGTATTGA TGATG ATTA TTTTTGT TTGA TCAAT ACT TATG T

AACATAGCGGTGTACTAATT ATTGT TGAT AAAAATA AATT AGTTA TGG ATAC /
GATTTAACATAAAAAATAGT - A C T-- ATCATG- CG-- AAATTA

TGTTA

GTT G TTAATTAT - TCT

GAM91 ACTGATTCTGGACATAGCTT 77 TAAGTTTGGC 426 T GACA T C G-------- AT
TCCGACTGGCGCATTTGGTG AGCTAGCAGA ACTGA TCTG TAGCT TC GACT GCGC T
TGATGGTTCCCATAAGTTTG TTCA ||||| |||| |||| |||| ||||
GCAGCTAGCAGATTCAGT TGACT AGAC ATCGA GG TTGA TGTG /
T G--- C T ATACCCTTGGTAG GT

GAM93 ATCATCATTTTTCACCATT 79 TGAGAATACT 428 A TTTTCACCATTAC TC - CA
ACTTCTTCCATGTCCAATAT AAAATTCCTA ATCATC TT TTCT CATG TC A
GATCATGTGAGAATACTAAA ACGA |||||||||||||||||||||||||
ATTCCTAACGATGAT TAGTAG AA AAGA GTAC AG T
C TCCTTAAAATCAT GT T TA

GAM95 TGGTTCTTTCCATAGTACAT 81 TCCATAGTAC 430 TCT GTACATAG GGTG
AGTTGTTGCGGTGCAGAAGC ATAGTTGTTG TGGT TTCCATA TTGTTGC C
AATAAATACAGAGTGTGGAA CGGT |||| |||||||| |||||||
CACCA ACCA AAGGTGT AATAACG /

GAM96 TTAATAGTTTACACCTTTTA 82 TAGTAGGACT 431 TTTTA A C TA-- -- CAT CT GAATTCCA

GTAGGACTAGTATCGTACAA AGTATCGTAC ACACC GT GGA TAG TCGT ACAATT AG

GTATTTT A

TCCAATCACGCATAAAAATA TGTGG TA CCT ATC AGCA TGTTAA TC TATAAAA

Т

TCTTCCAATTGTTGACGAAG CCTAC - A CAGA GT CCT -- ATACGCAC

ACCTAATCCATCATCCGGTG

TAATATTAA

GAM97 TTCATCCGATAAACTCCAAT 83 TTTGTGGTAT 432 - AACT A G GATA

AAAAAGATGATATCTAGT TGGATAGAA TTC ATCCGATA CCA TAAAAA AT T

GTTTTTGTGGTATTGGATAG || || || || || || ||

AA AAG TAGGTTAT GGT GTTTTT TG A

A ---- G ATCT

GAM98 TTAGTGACAGACCAGACCTA 84 TGACAGACCA 433 T ------ GA --- TC

GGAGCTATTCTACCATAGCA GACCTAGGAG TTAG GACAGA CCA CCTAGGA GCTAT T

AATCTTAGGCATGGACATAC CTAT |||| |||||| ||| |||||

TAATATCTGTCTTAA AATT CTGTCT GGT GGATTCT CGATA A

- ATAATCATACA AC AAA CC

GAM99 AACAAAGAAATGGAAATCGT 85 TTGAAATTGT 434 AG T TAATACC T

AATACCAGTTATGTTTAACT TTTTTATTTT AACAA AAATGGAAA CG AGTTA G

TTGAAATTGTTTTTATTTT CTTG ||||| ||||||||||||||||||

CTTGTT TTGTT TCAAT T

CT T TAAAGTT T

GAM100 TTCCACTGTCCAAAATGATG 86 TCCAAAATGA 435 ACT A G - C CCTTTTTA

CCTCTGCCTTTTTATACATG TGCCTCTGCC TTCC GTCCAA AT ATG C TCTG T

TTCCAGATGTCATAATATTG TTTT ||| |||| ||| ||| |||

GATTGGGAA AAGG TAGGTT TA TAC G AGAC /

GT- A A T T CTTGTACA

GAM101 CTGTGACCAAGATAGAGAGC 87 GTGAATCCAT 436 ACCA GCTCC-- TGAAT T CTA

AGTTT

TCCTTTGGTGAATCCATCTC CTCTATGTTT CTGTG AGATAGAGA TTTGG CCA CT

TGTTTC A

TATGTTTCAGTTTAACCAAG CAGT |||| ||||||| |||| |||||

AAACAGTCAGCTGGTCTAAA GACAT TCTATCTCT AAATC GGT GA ACAAAG /

ATTTCCATCTCTATCTAATA AA-- ACCTTTA T---- C CTG AACCA

CAG

GAM102 GTTTCTTTTAGAAGTGATTC 88 GAAGTGATTC 437 T-- GAA TT- A G

TTTGATGGTGTCAGCATACG TTTGATGGTG GTTTCT TTA GTGATTC TG TG T

AATTACAATAATGCAGAAAC TCAG |||||| ||| |||||| ||| |||

CAAAGA AAT CATTAAG AC AC G

CGT AA- CAT G T

GAM103 TTGATACGATATTTGTTGGA 89 TTTGTTGGAT 438 TACGA- - CCTG TT
TTCCTGATTATTTACTATAA TCCTGATTAT TTGA TATTTGT TGGATT ATTAT A
TATAATCTAGACAGATAGAT TTAC |||| ||||||| |||||| ||||||
GATTCGA AGCT ATAGACA ATCTAA TAATA /
TAGTAG G TA-- TC

GAM104 AATATCGGGCCAATAGTAGC 90 GGCCAATAGT 439 CG A AG - C
TATTACCGTCGACACGTGTA AGCTATTACC AATAT GGCCA TAGT CTATTAC CGT G
GTGGGAACTATGGCCAAATG GTCG ||||| ||||| |||| |||| |||
TT TTGTA CCGGT ATCA GGTGATG GCA A
AA - AG T C

GAM105 AGACTTCTGGCGGTTGCCAT 91 TTATCCCAAT 440 ---- CG CCAT- ATA
AGAATATACGTCGTTCTTAT TACCAACTAG AGACTTCT GG GTTG AGAAT C
CCCAATTACCAACTAGAAGT AAGT |||||||| ||| |||||
CT TCTGAAGA CC TAAC TCTTG /
TCAA AT CCTAT CTG

GAM106 GAAGTTTTTGGAGAATAATA 92 GGAATTGGAG 441 GAATAAT ----- TATT CA ACAA G GCGATGATCT GA ATGACTCAT GATC TCGTC TAA TGACTCATGATCTATTTCGT TCTA A CCATAAACAATCTAGACATA TAAT Ш CTAG AGCGG GTT GGAT GGAATTGGAGGCGATGATCT CT TGCTGAGTA С AAC----TAATTTTGTGCAATGAGTCG ACGTGTTTTAATT T--- AG AA-- A

GAM107 TAATCCCTTTTTCAGATGCC 93 GCGCTCCCCT 442 - TTTTCA GCCTCTTTTA CA
TCTTTTAGTTTATCAAAAAT AGTCGTACTC TAATCC CT GAT GTTTAT A
AAGCGCTCCCCTAGTCGTAC AGAG |||||| || || |||
TCAGAGGATTA ATTAGG GA CTG CGAATA /

A CTCATG ATCCCCTCG-

AA

TT T

TCAATCCTATAACTTC

CCA- - ACTACTT

- GAM109 TGCCGTTACTATTATTATA 95 TATTATTTAT 444 C AT--- TAA TG A C
 ACTGATGTAACCCACGTAAC AACTGATGTA TGC GTTACTATT TTA C ATGT AC C
 ATTGGAATTAACTATCGATA ACCC ||| |||||||||| ||| || || || ||
 GTAATGCA ACG TAATGATAG AAT G TACA TG A
 CTATC TAA GT A C

- G -

TCCTTA C CT-- A

GAM111 CAGCATCCGGCTTATCCGCC 97 CGAGGAGGAA 446 A T- - G C TCA
TCCGTTGTCATAAACCAACG TATCGTCGGA CAGC TCCGGC TAT CC CCTC GTTG T
AGGAGGAATATCGTCGGAGC GCTG |||| ||||| |||| |||| ||||
TG GTCG AGGCTG ATA GG GGAG CAAC A
- CT A A - CAA

TAGGACACGGTGT

- GAM113 CTTCATTATGAATTGATTCT 99 TGAATTGATT 448 T T --- G TAT-- C-- CA TT TAG TGAGGTATAAACCTAACACA CTTGAGGTAT A GAAT GATTCT T AGG AAAC TAACA AA ATATTAT AC T AATTATATTATTAGACTTTT AAAC **CGTATGTAATGTCTTTCATG** TITTA CTAAGA GITCC TITG ATTGT TITTGTAATG TG / TTATAAGTTTTTAATCCTGG - T TAA G TAATT AAT AC TC TA- CT AATAGAATCTATTTTAATGA GG GAM114 GAAGAGATGTAACGGGAACA 100 ACGGGAACAG 449 -- ACG CAG **GGGTTTGTTGATTCGCAAAC** GGTTTGTTGA GAAGAG ATGTA GGAA GGTTTGT A
- GAM115 GTTAATACGTCTTGCACGTA 101 TGCACGTAAT 450 C- CTAT CC
 ATCTATTATAGATGCCAAGA CTATTATAGA GTTAATA CGTCTTGCA GTAAT TATAGATG A

A TT AT-- AG

GAM116 GTTTTTGATATCGATCTGAT 102 TTCATATTTA 451 ATCG T CCTA A-

ATAACGTGCTC A TT

TGATCCTAGAACTAGATATA TTAGATACCG ATCTGAT GAT GAACT GATATATTA

ATTAGGC GT A

CAGTTTATGGCAGCTTGATA TAGATTA TTA CTTGA TTATATGAT TAGTTCG

CG /

ATTAGATATACCA CA-- T TA-- CC ATAGATTAA-- A GT

GTTCATATTTATTAGATACC

GCATTGC

GAM117 TAATGGTGACAGGGTTAGCA 103 TATGATCCTC 452 T C GCA- CCAATCAATA TTT

TCTTTCCAATCAATAATTTT TCTCATTG TAATGG GA AGGGTTA TCTTT ATTTT A

TTTAGCCGGAATAACATCAT |||||| |||||| |||||

CAAAAGACTTATGATCCTCT GTTACT CT TCCTAGT AGAAA TAAGG /

CTCATTG - C ATTC ACTACTACAA CCG

GAM118 TCGTTTAGATTTTCCATCTG 104 TAGGAGAGTT 453 TTA T TCCATCT TATCG A C CG-

Α

CCTTATCGAATACTCTTCCG ACTAGGCCCA TCGT GA TT GCCT AAT CTCTT CGT

ATGTCT C

TCGATGTCTACACAGGCATA ACTG |||| || || ||| ||| |||| ||||

AAATGTAGGAGAGTTACTAG AGCA CT AG CGGA TTG GAGGA GTA TACGGA A

GCCCAACTGATTCAATACGA TAA T TCAACC- TCA-- A T AAA C

GAM119 TGATGTAGTACTTTGATGAT 105 TAAGTCTTCC 454 AGT T T TTCC CC

TTTTCCATGGCCCATTCTAT AAGTTGGCAT TGATGT ACTT GA GATTT ATGG C

TAAGTCTTCCAAGTTGGCAT CA ||||| ||| ||| |||

CA ACTACG TGAA CT CTGAA TATC A

GT- C T T--- TT

GAM120 TTGGTAACTCATTCTATATA 106 TAGAATATAC 455 A TC ----- G T GTT

TGCTTTCCTTGTTGATGAAG TCAATAGAAT TTGGTA C ATTCTA TATAT CT TCCTT G

ATTTGTACCAA AACCAT G TAAGAT ATATA GA AGGAA /

-TT AACTC A T GTA

GAM121 TTTCTAAGATATGGGATTTT 107 TAAGATATGG 456 A-- A G ACT T A TC

ACTTAATATAATATTTC GATTTTACTT TTTCT AGAT TGG ATTTT TAATA AAT TTATT C

AATGCCAAATCTATAAGAAA AAAGA TCTA ACC TAAAG ATTAT TTA AATAA C

ATA A G --- T - TG

GAM123 TCCGCACTATCGATTTGATA 109 TAAAGCTATC 458 CACT T- - - T
CTTTCTTTTCAGAGTAAAGC GTCATTGATC TCCG ATCGAT TGATA CTTT CTT T
TATCGTCATTGATCATCGGA ATCG |||| ||||| |||| |||| ||||
AGGC TAGTTA GCTAT GAAA GAG C
TAC- CT C T A

GAM124 TTCTAGAGTAGTAGTCCTAA 110 TCTTATTGTC 459 T CT CATTCTCT--- TTAT- TCCT TT ATGT GT TCATTCTCTTAAATTTTATG TGATTTATTT TAG AGTC AAT TAAATT GTA AGT CA CTC A TATCCTAGTTTCAATGTCTC CTTT 111111 111 111 111 **GTAATGAGTTTGTGCTGCTC** ATC TCGG TTA ATTTAG TAT TCG GT GAG / TTATTGTCTGATTTATTTCT - TT CCATTTTCTTT TCTGT TC-- TC GTTT TA TTTACCATTTTGGCTCTATT CTGAA GAM125 GATCTATAGTCTTCGTATCT 111 TGTTACGAAA 460 - CTTC- CT T AA TAT TT GTTACGAAAATCAATATATT ATCAATATAT GATC TATAGT GTAT GT ACGA ATCAA

GAM126 TGTACGATTGTATTGCGTTA 112 TTAGTCAATG 461 A TATT - AC TAA
CTAAACGATAAATAATTCTT CTTTAACGTA TGTACG TTG GCGTT ACTAA GA A
AGTCAATGCTTTAACGTACA CA |||||| ||| |||| |||
ACATGC AAT CGTAA TGATT CT T
- TT-- C -- TAA

GAM127 GCGTATCTACTCCAAAT 113 TCCAAATTGC 462 CTACTCCA A TTC TAT
TGCAGTTTCTGGTATCCATC AGTTTCTGGT GCGTATCTA AATTGC GT TGG C
CATACGCGTAATTATCAAAT ATCC ||||||||| |||| ||||
AGATATGT TGTATAGAT TTAATG CG ACC /
AAACTA-- - CAT TAC

GAM128 TATATCCTACCGCTTTTTAT 114 TAATAAGATG 463 CG TTT C-- -- ATG TTTTATGTTAT
TTA TTA
CAACTATGTAATGAGTTTTT CTAATACATC CT TAT AACT ATGTA AGT GTCTT
GTTAGG A

ATGTTATGTCTTTTAGTTAG AGGT 11 111 1111 1111 111 GA ATG TTGG TACAT TCG **GTTAATATTCTAATAAGATG** TAGAA TAATCT / CTAATACATCAGGTTAAAGT A- TT- AAA AC AA- -----**ATTAGAATGGGATTATA**

GAM129 ATCAGACCATATACTGAGTT 115 TGAGTTGGCT 464 AC TAT TT - ---- - CGT **GGCTACTATCTTGTACGTAT** ACTATCTTGT ATCAG CA ACTGAG GGCTA CTA TCT TGTA A **ACGT ATTGCATGGAATCATAGATG** 1111 11 11111 1111 111 111 **GCCTTTTCAGTTGAACTGGT** TGGTC GT TGACTT CCGGT GAT AGG ACGT /

TAT

TT A ACTA T TAT AA ---

GAM130 TAGTCACGACTGAAATAACC 116 CGGCATGGTT 465 ACT AA-- C --GCGTGATTATTTTTTGGTAT TCTGTGACTA TAGTCACG GAAAT CCG GT GATTAT T **AATTCTACACGGCATGGTTT** 1111111 11111 11111 111111 **CTGTGACTA** ATCAGTGT CTTTG GGC CA TTAATA T --- GTAC A TC TGG

GAM131 TCATCCAATATTATTGAAAT 117 TGATGGACAG 466 CA TTGA-TT CAG TACAAATA A AC T C GACGTTGATGGACAGATGAT ATGATACAAA ATATTA AATGACG GATGGA ATGA **AGA** GGT GG AC T ACAAATAAGAAGGTACGGTA TAAG 11111 111111 11111 1111 CCTTTGTCCACCATCTCCTC TGTAAT TTACTGT TTATCT TACT TCT CCA CC TG T CAATTCATGCTCTATTTTGT T-CG- TAACCTCC A -- - T TTCAA

GAM132 TCGTCGGTATTTTTTATGGC 118 CGGTATTTTT 467 A C TTTACTCT CG **AAACTTTACTCTTCCAGCAT** TATGGCAAAC TCGT GTATTTTTT TGG AAAC CCGTTTCTAAAAAAAATATTA TTTA AGCA TATAAAAAA ATC TTTG **ACGA** C

AΤ - - CCTACGAC

CATTAACTTTAATGTATGA

GAM133 ACCATTCCAAGTCACTGTGT 119 TATCATAAGC 468 TTCCA CTG- TA GAT ACCA AGTCA TGTG AGAA T GTAAGAAGATTATATTCTAT TTGACTACAT CATAAGCTTGACTACATTTG TTGG Ш GT TGGT TCAGT ATAC TCTT / TTACA TCGA TA ATA

AACT GAM134 ATATCTTTAACTAAGTCAAT 120 TCAATGATTT 469 ATTTCATCAACCG-- TC GATTTCATCAACCGTTAGAT CATCAACCGT ATATCTTT AAGTCAATG TTAGA T CTATTTTAAAGTTAATCATA **TAGA TAGGCATTGATTTTTAAAAG** TATGGAAA TTTAGTTAC AATTT / **GTAT** ATT-GGATATACTAATTGA TA

GAM135 CAGCCGAAACATATTCTACC 121 CATGGCTCCG 470 CC ATTCTACC GC A- T
ATGGCTCCGTTTAATTTGTT TTTAATTTGT CAG GAAACAT ATG TCCGTTT ATT G
GATGAAGATGGATTCATCCT TGAT ||| ||||||| ||| ||||
TAAATGTTTTCTCTG GTC TTTTGTA TAC AGGTAGA TAG T
TC AATTCC-- TT AG T

GAM136 CCGTTTTTAGACCGAGACTC 122 TAACTCGGAT 471 TTT- - ACTCCA TAAA CA
CATCCGTAAAAATGCATACT CTGCTATATG CCGT TAGA CCGAG TCCG AATG T
CGTTAGTTTGGAATAACTCG G |||| |||| |||| |||| ||||
GATCTGCTATATGG GGTA GTCT GGCTC AGGT TTGC A
TATC A AATA-- TTGA TC

GAM137 CGCTTCTATCTTGTTTAGAT 123 TGACTAGATA 472 ----TT TAAA GTTT TCTC--ACATA TTATTTTATAAAGTTTAGT AACTATCAGT TCTATCTT AGATTTATT TA GTTTAGTC CTTCCA A CTCTCCTTCCAACATAATAA **AAGT AAGTGGAAGTCATTTGACTA** AGATAGAG TTTGAATGA AT TAGATCAG **GAAGGT** Т

GATAAACTATCAGTAAGTTT AAGC ATAT CT CAAA TTTACT GAAAA TATAGAGATAGACGAACAAT TAGCG

GAM138 GACATACATACTTTAA 124 ACTATCTTTA 473 C TT------ CTCT C--- AAT--T

C CTATTTTATCATTTTCCAGA A CCTTTTACTATT CT-- ATTA CAATT G
TGATATGTATGTC

GAM139 TACAAAGGAGATGATTTATC 125 TATGGTATTA 474 ------ TTATCTAT TT - C TC

TATGGTATTAAGAATTCGTT AGAATTCGTT ACAAAGGA GATGAT GGTA AAG AATT GTTTT GAC T

AATTCCTTTTTGCCTGTATC TGTTTCCT CTACTA CCGT TTC TTAA CAAAA

CTG C

ATCCAGTTTTCCATCCTTTG ACCTTTTGAC TGT----- TT C C -- C

GAM140 TGTCACTTTGTTATTGGCCA 126 TTCCTCGGCC 475 --- T-- AACC-- TT
ACCTTTGTTGTACAAATTCC ATTTTAATAT TGTCACTT TGTTA TGGCC TTTG G
TCGGCCATTTTAATATTTAA TTAA |||||||| ||||| ||||| |||||
GTGATA ATAGTGAA ATAAT ACCGG AAAC /
TTT TTT CTCCTT AT

GAM142 CACCGCCTCTAGATATCGCC 128 CGCCTTTATT 477 CG ATCG-- TTTAT ACATT AAATCCA

TTTATTTCCACATTAGATGG TCCACATTAG CAC CCTCTAGAT CC TTCC AGATGGT

Α

TAAATCCAATAGTGAAACTA ATGG ||| |||||||| || ||||

TCTTTTTAGGAATGTATGGA GTG GGAGATTTG GG AAGG TCTATCA /
CTCGCGTTTAGAGGAGTG A- CGCTCA TATGT ATTTT AAGTGAT

GAM143 GACACTTTGCCGGCGGTTGT 129 ACATATCCGT 478 CT CC T-- ATTTATCA
AGATTTATCATATTTCTCCA TACAATTTGT GACA TTG GGCGG TGTAG T
CTACATATCCGTTACAATTT T |||| |||| |||||
GTT TTGT AAC TTGCC ACATC A
TT A- TAT ACCTCTTT

GAM145 GGCTATTCTGGCGGCTAGAA 131 TGCTATTTCG 480 C TA TAAT GA TGT TGGCATAATCCGGATGTTGT GCTGCCAGAG GG TATTCTGGCGGC GAATGGCA CCG TGT G

GAM146 TATATACGATAAGATATGTT 132 TAAGATATGT 481 C ---TTT A ----- -- AATT **TATTCATAAACGCGTCAAAT** TTATTCATAA TATATA GATAA GATATG ATTC TAAAC GCG TCA T TTTTCATGAATCGCTAAGGA **ACGC** III III **GTTTAAGAATCTCATGTCAA** ATATAT CTGTT CTGTAC TAAG ATTTG CGC AGT / **ATTGTCCTATATA** TC- A AGGAAT TA ACTT

GAM147 TCTGGTTCTATGTTCCTCGT 133 TCTATGTTCC 482 TC --- TT C TATT
TTCCTGTATTCTTTTAAGA TCGTTTCCTG TCTGGT TAT GTTCCTCG TC TG C
TCGAGGAACGCCATAATATC TATT |||||| ||| ||||||||||

Α

GAM148 GGAACAAATATAGTATCTGA 134 TATAGTATCT 483 A- G C AA TTCATA TC
AATCATATTCATATATCCCG GAAATCATAT GGAACAAAT TA TAT TG ATCATA TA C
TTAGAGGTCTATGATAATAT TCAT ||||||||| ||||||| |||
ATAGTAGCGTTTGTTCC CCTTGTTTG AT ATA AT TAGTAT AT C

CG G T AA CTGGAG TG

GAM149 TTCCTTTTCGTTGATCTCTC 135 TCGTTGATCT 484 CGTT TCT TA G
ATAGATTTAGAAATAAATTC CTCATAGATT TTCCTTTT GATC CA GATTTA A
TTGCGATCCTCCAAAAGGAG TAGA |||||||| |||||||
GAGGAAAA CTAG GT TTAAAT A
CCTC C-- TC A

AGCTGTATCTAATGTTCTAG TGATCTTG TATGTC ATATAAATG CGT AGT G C
T TAATC G GCTA - T G

GAM151 GTATATCATCAGCTGAAAAA 137 TTCCTTCGGC 486 CA-----AAAC CTATGTTTTACACGTATTCC ATTTCTTTTT GTATATCAT GCTGAA TATGT T TTCGGCATTTCTTTTTAATG AATG 111111 11111 **ATATAT** CGGCTT ATGCA / TATATAGTA ATTTTTCTTTA CCTT CA

GAM152 ACAACTATGCCTTTTAGATT 138 TAAGATAAAC 487 A CT-- A CCTAATT CACGG TAT

ATCTCCTAATTTATAACACG TAAATCTCGC ACAACT TGC TTTAG TTATCT TATAA CCG

GAM153 GGATTTTAGAATTTCCAAAT 139 TGAAATCCAA 488 T AATT AAA--- T
TCACCAGCGATTTATCGGTT GGATTTATTA GGAT TTAG TCC TTCACCAG CGA T
TTGGTGAAATCCAAGGATTT ATGT |||| |||| ||| ||| |||
ATTAATGTCC CCTG AATT AGG AAGTGGTT GCT T
T ATTT AACCTA TTG A

```
CATTGATGCTCTAGACCGTG
                          TTGATGCTCT
                                       ATGGT CGAAGTATAGC GGA GAT TAGA TG
Т
   TATAACAAAATCTACAAATT
                        AGAC
                                   TTTCATCCGCTATATTTTGT
                                 TATCA GTTTTATATCG CCT TTA ATCT AC /
   TTCACTAT
                            CTTT
                                   - ACTTT AAC- AAA AA
GAM155 GGTGTTAATCCACTATATGT 141 TCCACTATAT 490 T - ------ - A--- C ATAACA
CAT
                          GTTTCTGTAG GGTGT AATC CACT ATATGT TTCTGT GCGG
   TTCTGTAGCGGCTGATAACA
TG
   CAG C
   CAGCATCCAACTGAGCATCC
                          CGGC
                                     1001 100 100 1000 1000 101 10
   GCGTCCGCAGAGCACATATT
                                  CTACA TTGG GTGA TATACA GAGACG CGCC AC
GTC /
                                    - A CAATTTT C CCTG T GA---- AAC
   TTTAACAGTGAGGTTACATC
GAM156 GTTAGCAAGAAATTAACATT 142 TTCCGCATAT 491 C A-- CATTG ATTC A T TCCC
   GGCATTCGAACACTCTGGAT
                          TTTAATGACT GTTAG AAGA ATTAA GC GAAC CTC GGA A
   CCCAACATTCTCGAGGTTCC
                          CTTC
                                    CAATC TTCT TAATT CG CTTG GAG TCT /
   GCATATTTTAATGACTCTTC
   TAAC
                          - CAG TTATA C--- - C TACA
GAM157 TCAGTGGGTACTCCCGGAGG 143 GAGCTCAACA 492 TACTCCC-- A ------- GT
   CGGATCCCGTTTAGGGAGCT
                           CTTACTCCGC
                                       TCAGTGGG
                                                    GG GGCGGA
                                                                 TCCC T
   CAACACTTACTCCGCCACCC
                          CACC
                                    Ш
                                          CC CCGCCT
   ATATTTATCTCATTGA
                               AGTTACTC
                                                        AGGG /
                         TATTTATAC A CATTCACAACTCG AT
GAM158 ACACGACTGTGGTAGATTTG 144 TGTGGTAGAT 493 C TG-- A T AGA C T
                          TTGTTCTATA
                                       ACA GAC TGGTAG TTTGT CTAT GC GG T
   TTCTATAGAGCCGGTTGCCG
   CAAATAGATAGAACTACCAA
                          GAGC
                                    111 111 11111 1111 1111 1111
   TATGTCTGT
                           TGT CTG ACCATC AGATA GATA CG CC /
                       - TATA A - AA- - G
GAM159 ACAGTTTGAAAAATAACAGT 145 AACAGTATCA 494
                                                 AATA
                                                       TCATTTAAACAT
   ATCATTTAAACATTTAACTT
                         TTTAAACATT ACAGTTTGAAA ACAGTA
                                                            TTAACT C
   GCGGGGTTAATTTCACAACT
                          TAAC
                                    111111
   TTACTGTTTTTAAGCTGT
                                TGTCGAATTTT TGTCAT
                                                      AATTGG /
                               TTCAACACTTT-
                                            GG
GAM160 CCACCTGTTTTAACATATAA 146 TAATATTGAT 495 T- -- GA T TATCCGTCATTG-
--- TT
   TAGGCAGGAGATAGATATCC
                          AAAATCTCCA ATAATAG GCAG GA AGA
                                                                CAATATT
CCT T
```

GTCATTGCAATATTCCTTTT

TTCT

Ш

CGTAGGCACACAATCTAATA TTGATAAAATCTCCATTCTC TTCTCTGCATTTATTATCTT TATTATT CGTC TT TCT GTTATAA GGA C
TC TA TC C TACCTCTAAAATA TCTAACACAC TG

GTTTCGGTGG

GAM161 TACTTTTCTTTACCTTGAG 147 TGAGAATATC 496 TTTACC -- T - CGT TGG

AATATCCATCGTTTGC CATCGTTTGC TACTTTTC TTGA GAA ATC CAT TTGCT T

TCAATAGCGATATGTGATTT TTGG ||||||||| ||| ||| ||| ||||

TTTATCAACCACTCGAAAAA ATGAAAAAG AACT TTT TAG GTA AGCGA C

GTA CTCACC AT T T T-- TAA

GAM162 TAGTACTAGACTGACTTCTA 148 TATTAAAGTC 497 TAC CT C-- A A CTCACCTG
ACAAACATCTCACCTGCCAT TTCTATTTCT TAG TAGA GACTT TA CAA CAT C
AAATAAATGCTTGATATTAA A ||| |||| |||| ||| ||| |||
AGTCTTCTATTTCTA ATC ATCT CTGAA AT GTT GTA C
TTT T- ATT A C AATAAATA

GAM163 AAATTATTCTTATCATGCGT 149 ATTATTCTTA 498 T TATCAT TCC TCC T
CCATAGTCCCGTTCCGTATC TCATGCGTCC AAA TATTCT GCG ATAG CG T
TATTATCGTTAGAATATTTT ATAG ||| |||||| ||| |||
TTT ATAAGA TGC TATC GC /
T T----- TAT TAT C

GAM164 ACATCCATTTTTAAGTATTA 150 TTTTTAGATA 499 C TTA AAA-TC GTTTA TATTAAAATTTAATCAATGT AAAAATATAA ACATC ATTT AGTATTATATT ATTTAA AAT Т TTATTTTTAGTTTTTTAGAT TATT 11111 1111 11111111111 11111 1111 **AAAAAATATAATATTATGAG** TGTAG TGAG TTATAATATAA TAGATT TTG / **TCGATGT** C TA-TT ATTTT AAAA

GAM166 CTATCGGTTTACTATTTATT 152 GTTTACTATT 501 C T TTAT G A
GATAACGCAGATGTTTGAGT TATTGATAAC CTAT GG TTACTAT TGATAAC CAG T
TGTCATCCATGGTAATCCAT GCAG |||| || ||||||| |||||| |||
AG GATA CC AATGGTA ACTGTTG GTT G
- T CCT- A T

GAM167 GTACATGTGAAAATAGTCAT 153 CATGTGAAAA 502 CA- T- TCA - GAT AA AAAGT CT

ATTCCTGATTAGGATAATCA TAGTCATATT GTA TGTGAAAA AG TATT CCT TAGGAT TC TAACAA A AAGTTAACAACTACTTTGTT CCTG ACGGACGATCTTATTAAGGT CAT ATACTTTT TC ATGA GGA ATTCTA AG ATTGTT / TT TAC T ATT **AGTACATCTTTTTTCATAA** TTA GC GC--- TC TTTAC GAM168 TGAAGAACATATTTAATTCA 154 TGAATACAAC 503 AACATATTTA GA AAAAT GATCTAAAAAATACATATAT GAATACTTCA TGAAG ATTCA TCTAA A TAGAATGAATACAACGAATA **ACTTC** TAAGT AGATT **CTTCA** C ATAAGCAACA A- ATATA GAM169 CAGCTACTTCTACCCAATCA 155 TTAATTGGTT 504 TC CAA GTAT Т TA CCAGGCAATAAATGTATTTT TAATCGTTTA CAA ACCAGG TAAAT TTTATTTT AATAAAC CC TTGGCG T ATTTTTAATAAACTTTCCTT TTAA **GGCGTATTCTTGTTAATTGG** GTT TGGTTC ATTTA AAATGAAA TTATTTG GG AATTGT T TTTAATCGTTTATTAAAGTA CTAATTT TT TC Α--AAATTTAACTTGGTTTGACG CTAATAGTTG GAM170 TTGCAAGTTTCTGTTTCTGA 156 TTCCACAGAG 505 C TC T A-CG TCC GAGTAAACGAATCCCTGTTT CACTAATTTC TTG AAGTT TGTT CTG GAGTAAA AA C TATTTTATTCCACAGAGCAC CAA AAC TTTAA ACGA GAC CTTATTT TT T **TAATTTCCAA** C TC - AC TA TTG GAM171 CCGCTTCTATTTACTCCCGC 157 CCGCAGCACA 506 C-- CTCCCG-- AC A AA AGCACAATGAACCAACACGG ATGAACCAAC CCGCTT TATTTA CAGC AATGA CC C GCTCGTTTCGTTGATCACAT ACGG TTAGATAAAAAGGCGG GGCGGA ATAGAT GTTG TTGCT GG A TTACACTA CT C GC AAA GAM172 GTTAGGCAATGTATATTTAT 158 CAATGTATAT 507 - CA TATTTAT AAATTTAAAACATATT CT CCATCGTCAAATTTAAAACA TTATCCATCG GTTA GG ATGTA CCATCGTC TGAA T TATTTGAACTTAACTTCAGA **TCAA** Ш TGATGGTGCATCCATAGC CGAT CC TACGT GGTAGTAG ACTT A ----- CA GAM173 ACTTTTTATGAAGAGCCGCG 159 TGAAGAGCCG 508 TAT A CG A---

CGTTTAACAA

TGCT

ACTTTT GA GAGC CGTTT ACAATG T

TTTAACAATGCTTTATTGTC

TCCGAACGTAGCTCTCTTAA

TT- - AT CCTC T

GAM174 TCGTCATATCCCGTATAGTC 160 TTGAATTTAC 509 TATCCC ---- CA---- A TCGTCA GTA TAGT AGAGATAGGAATCTTGAATT TAATCTTGCC **GAGAT G** TACTAATCTTGCCCTTGTTG CTTG 111111 111 1111 11111 GCGG GGCGGT CGT ATCA TTCTA G TGTTCC TCTA TTTAAG A

GAM175 CGCCTAATAGCTTGCGGCAG 161 TCCAATCGCA 510 ---- - CA- TGT ATATGTTTTCTTATCCAATC TAGCTATAAA CGCCTA ATAGCT TGCGG GATA T GCATAGCTATAAAATAGGCG ATAG GCGGAT TATCGA ACGCT CTAT T AAAA T AAC TCT

GAM176 GCGCACTAATTGCCAATATA 162 TTGATGTTTT 511 C TAATT T A AAGAA ATAACAAAGAATATAAGTGT GGCTGCTTGT GCG AC GCCAA ATA TAACA T ACGC ||| || ||| |||| TGATGTTTTGGCTGCTTGTA CGC CGC TG CGGTT TGT GTTGT / A TTCGT T A GAATA

GAM177 AATACGAGTTATATTTTCGT 163 AGTTATATTT 512 AG--C-- TATCCAT TTCA TCGTCTATCC AATACG TTATATTTT GTC CTATCCATTGTTTCACATTT TGT C ACATATTTCGACAAAAAGAT ATTG ATAAAATGCGTATT TTATGC AATATAGAA CAG ACA / AAA CTTTAT- TTTA GTAA

ATCTCT - ACTA TA T- TA GAM178 GCCGATCTCTGAATGGATAC 164 TCTCTGAATG 513 TAGTTTTCTAAGTTCTAATG GATACTAGTT GCCG GAAT GGAT GTTTTC AG TC A **TGATTCTCTGAAAATGTAAA** TTCT **TCCAATTCCTCCGGC** CGGC CTTA CCTA TAAAAG TC AG T CTC--- A AATG TC TT TG

GAM179 GCGGTATAATTAGTTTTTTT 165 TGTGATGGAA 514 GG T - C ATT T CTCTCAATTTCTATTTTTAG AAATGACTAA GC TA AATTAGTT TTTTTCT TCA TCTA T ATGTGATGGAAAAATGACTA TTTT ATTTTGTAGC CG GT TTAATCAG AAAAAGG AGT AGAT T ATT T T GT- T

GAM180 GTGGAAACGATAACTGTATT 166 GATAACTGTA 515 ACG-- A TTAATCAC- CA GTGGAA ATA CTGTATTT TTTAATCACGTCAGCGGCAT TTTTTAATCA GT G CTAAATTAAATATAGGTATA CGTC Ш TTTATTCCAC CACCTT TAT GATATAAA CG /

ATTTA G TTAAATCTA GC

GAM181 AAATTCATGTGAAACTTTGT 167 TTCATGTGAA 516 T T CTTT TTCCTACAAACT TAA
CCTTTCCTACAAACTTGATA ACTTTGTCCT AAAT CATG GAAA GTCCT TGA C
ACTATTTCATCGGGACTTAT TTCC |||| |||| |||| ||||
TTCTATGTGTTT TTTG GTAT CTTT CAGGG ACT T
T - ATT- CT------- TTA

GAM183 ACCGTCGATACTGCAGAGAT 169 TCGATACTGC 518 T C C- TC T TA

TCTAGTAATAATTTTCTTAA AGAGATTCTA ACCG CGATA TG AGAGAT TAG AA A

GATCTTTAACGATATTGTCG GTAA |||| ||||| ||| ||| |||

GT TGGC GTTAT GC TTTCTA ATT TT /

T A AA GA C TT

GAM185 GGAGAAAGAATTACATTCTC 171 TTAGTTCATC 520 A T T AG------ AATAT CG TCGT ATATGGAACT ATT CAT C CTGGAGA CCATA ATGA TGGAGAAGCCATAAATATAT TGATAGAG C GACGTGATAGAGTCGTCAAT TTTT TCCTTTATTAGTTCATCATA TAA GTG G GATCTCT GGTAT TACT ATTATTTC Α TGGAACTTTTTCATTGTCTC - T - GTTACTTTTCAA AC--- TG CTTA **TAGGTGTGAATTCTATTTCC** GAM186 GGATAAGTTATTCATGACGG 172 TAAGTTATTC 521 T AT--- - CATAA CGG GAA TAGCATAATGTCTCGGATGA ATGACGGTAG GGA AAGTT TCAT GAC GGTAG TGTCT AT

Α

GAM187 GTATTTCTTTGACTTGAATA 173 CACTAGTTTA 522 TTCT C GAAT TCC CAC
CTATCCGATCACAAATATCC GATTCAACAT GTAT TTGA TT ACTA GAT A
ACTAGTTTAGATTCAACATA AC |||| |||| ||| ||| |||
C CATA AACT AG TGAT CTA /
C--- T ATT- CAC TAA

GAM188 GTTATCTATAGCATCTACTA 174 TCTATAGCAT 523 TA-- CTA AC CAT ACTGTACATTTTTTACATCT CTACTAACTG GTTATCTA GCAT CTA TGTA T AGACCATGTACCTTAGATAA TACA |||||||| ||| ||| ||| T TAATAGAT TGTA GAT ACAT / TCCA CCA CT TTT

GAM189 TCCTTTACCATTTCTAAAAT 175 TGTAAGCTCT 524 TTTCTAA- T CCATG TCTTTTTG **ATGA** AGTCGTTGCCATGTAAGCTC TTTTGAAATT ACCA AATAG CGTTG TAAGC **AAATTG** TGGAGT C TTTTTGAAATTGATGGAGTA GATG TGACCTACCACTTCAGCAGT TGGT TTATC GCAAT GTTTG TTTGAC ACTTCA C TTGTTTGATAGTTAACGCTA TTTTTCAA - TGATA ------CCAT **TTAACTTTTTTGGTGACGGA**

GAM190 TAGTGGCTTCTAATCAGATG 176 ATATCATTGA 525 TCTAAT T TAATAAATATTTTAAA ATCT A TTCTAATAAATATTTTAAAA CCATTTGTCT TAGTGGCT CAGATG TC **AATGA** TGATT A ATGAATCTTGATTAAAAATC GGCT TTACT ACTAA / ATATCATTGACCATTTGTCT GTCATCGG GTTTAC AG **GGCTACTG** TCT--- C ----- AT-- A

GAM192 AGGTATCGGTCTCTACTGAA 178 TAGCTTCTAC 527 TAT TCTCT AATCTA TC
TCTACTAACATGTCTCGTAT AGTCTTTCGT AGG CGG ACTG CTAACATG T
GTTAGCTTCTACAGTCTTTC TTCC ||| ||| |||| |||||||||||
GTTTCCT TCC GCT TGAC GATTGTAT /
TTT TTC-- ATCTTC GC

GAM193 CGTCATTATTTTCAGCAGCC 179 TGAGAAAAGT 528 ATTATT CA- - - - T A
TCTCTACCAGAAGGTTGAGA GTGTTCTGAA CGTC TTCAG GC C TCTC ACC G
AAAGTGTGTTCTGAATCGCA TCGC |||| |||| |||| |||

GAM194 GGGTGTAGGATATAGTTTCA 180 TAGGATATAG 529 ----- TTTC AACAT AT--- CATTTC

TAATAGGAACATGATATTT TTTCATAATA T GTAGGATATAG ATAATAGG GAT

TTTTTGTAC A

TTGTACCATTTCACCAACAA GGAA | | ||||||||| ||| ||| |||

GTATAGAAATGCAAATCTAT A CATTTTATGTT TATTATCT CTA AAAGATATG

С

ATCTATTATTTTGTATTTTA ATCTAC T--- ATAT- AACGT AACAAC

CCATCTAACCC

GAM195 GAATAGTTACATTCA 181 TATTACACAC 530 CATT ATCTTCG TTT TC ACTAT

CC A AT

TCTTCGATGTTTAATGTTCC GGAACGTTTA GTTA TGATTC ATG AATGTTCC TG AT

CC ACGTG A

TCTGACTATATCCCCAACGT TAAC |||| |||||| ||| ||| || || |||

GATAATACGCGTAGGTTATT CAAT ATTAAG TAT TTGCAAGG AC TA GG

TGCGC A

ACACACGGAACGTTTATAAC T--- ACATCAA --- C- ACAT- TT A AT

TACAGAATTATTAACTATTT

GAM196 GCTACCAAGGCGAACAACAA 182 TAACACGCTT 531 C - C-- ACA A- CCTGATC

AGCGATTATTGTTTTACCTG CTGTTCTCAT GCTA CA AGG GAACA AAGCG TTATTGTTTTA

С

AACACGCTTCTGTTCTCATC TGAT GT TCT CTTGT TTCGC AATAACAAGGT /

TATGATAGT A A ACT C-- AC ATAATAC

GAM197 TCAGGCATTTCGTAATATGA 183 AGGCATTTCG 532 G -- TATTCTTCC--- CA

TATTCTTCCTTTAAGCAAAT TAATATGATA TCAGGCATTTC TAAT ATGA TTTAAG A

CGTTCGTTAAGAAGTGTCTG AGTCTGTGAAGATTG TGCT GAATTC A

A CT CCACACTTACAT CT

GAM198 AAGAATATAGAAATAATGAT 184 TATAGAAATA 533 AAATA TA TC TCATCG

AAGTCCATCATCGTGTTTTT ATGATAAGTC AAGAATATAG ATGA AG CA T

TTGCCTCTTCATAAGAACTA CATC ||||||||| || ||

TATTTTT TTTTTATATC TACT TC GT G

AAGAA TC C- TTTTTT

GAM199 CTTGATAGTTGTTCCTAGAT 185 TACTAGGTAG 534 T - - A AAAAT

ATGTAAAATAATCCAACGTA CAAATTGTCT CT GATAGTT GTT CCTAG TATGT A

CTAGGTAGCAAATTGTCTAG AG || || || || || || ||

GA CTGTTAA CGA GGATC ATGCA

T A T - ACCTA

GAM200 TAATATACTTGCGTGTCGTC 186 TTCAATTTAT 535 AT TGCG TC TATAC TTTCTATAGTTCT TAT

GTTCAATTTATACGGATTTC ACGGATTTCT TA ATACT TGTCGTCGT AATT GGA CTGT A

TATAGTTCTCTGTTATATAA ATAG || ||||| |||| ||| ||| |||

TACGGTTTTCCATCATGATT AT TGTGA ACAGCAGCA TTAG CCT GGCA T

AGACGACGACAATAGTGTTC CT TA-- GA TACTA TTT------ TAA

TΑ

GAM201 GCGGACACGGATACTCGTTT 187 ACTCGTTTAT 536 ACAC - GT--- G - A GGT
ATGACACCATAGGCATTGGT GACACCATAG GCGG GGAT ACTC TTAT ACAC CAT GGCATT
T

TAACGAATGCCGTGAGTGTA

GCAT |||| |||| |||| |||| |||| ||||

ATAATTTGAGAGTCATCCTC CGCT CCTA TGAG AATA TGTG GTG CCGTAA A

GC ---- C AGTTT A A - GCA

GAM202 TTTCCTGTTTGGACAAATAA 188 TTTCTAGTTC 537 - GGAC AATTC ATC CT
TTGGAATAATTCAGAAATAA TAATTATTTC TTTC CTGTTT AAATAATTGGAAT AGAAATA
GTTT T

A C C A C CCA

GAM204 GCCATTATAAAGTGCACGTT 190 TATAAAGTGC 539 ATAAAGTGCA AC TC GGAG
TACATATCTACGTTCTGGAG ACGTTTACAT GCCATT CGTTT ATA TACGTTCT G
GAGTAAGAACGTGACTATTG ATCT |||||| ||||||||||||||||||||||||||
AGACGAATGGC CGGTAA GCAGA TAT GTGCAAGA /

----- GT CA ATGA

GAM205 GCTCTTGAAACCAAGGTTTT 191 TGAGAAGTCT 540 CT CC GT TC A --- TC CCAACCGGACTCATTGTCGA TTTTCATTAG GCT TGAAA AAG TT CA CCG GAC A TCGGTGAGAAGTCTTTTCA C ||| ||||| ||| ||| ||| ||| || || || TTAGC CGA ACTTT TTC AA GT GGC CTG /

TT -- TG GA - TAG TT

GAM206 AATTCAGTAAATAGAGAGAT 192 CCGCACTAGC 541 GT--- ATA AG--- C C CC C T TT

ATCAGCCGCACTAGCATCCC ATCCCCTTTC AATTCA AAATAGAGAG TC CCGCA TAG AT CCTTT AA AG C AATA CTTTCAATAGTTCTCCCTTT TTAAAGGTATCTAATGCGGA TTAAGT TTTATCTCTC AG GGCGT ATC TA GGAAA TT TC T AAA ATTTA A - T- T T CC TTTAGAAAACTCTCTATTTC AATTC TTAATGAATT GAM207 GAACGTAAACGTAGTAGCCA 193 TGATATACCT 542 C CG - GC- A CTC A GTTTTTATTT GAA GTAAA TAG TA CAT CGT AG A TACGTCTCAGAATTCTAAAT GATGATATACCTGTTTTTAT С CTT TATTT GTC AT GTA GTA TC T TTC - TT C ATA - AA- T GAM208 TATTAACGTATCGCATTAAT 194 TAACGTATCG 543 T TATCGCATTAATACT TAGCGA-CC ACTGTTTTCTTAGCGAATGA CATTAATACT TA TAACG GTTTTCT ATGATG AGA C TGCAGACCCTTCTACGTCAT GTTT 11 11111 CAAAAATAGAAAACTCGTTA AT ATTGC TACTGC TCT C CAAAAGA T T----- TAAAAC ΑТ TTA GAM209 TCAAAGACTAGACATTTACC 195 ACTAGACATT 544 GAC- CATTTACCA TGCT ATGGGATGCTAATATTCCCA TACCATGGGA TCAAA TAGA TGGGA A AACATACATCTATAAATTTG TGCT 11111 1111 IIIII AGTTT ATCT ACCCT / AAAT ACATACAA- TATA GAM210 ATGTATAGATTGTTTTCAGT 196 TAGATTGTTT 545 - TCA- ---- A G GAGATGATTATTAGATTTAA TCAGTGAGAT ATGTA TAGATTGTTT GTGA GATG TTATTA A GATT TAGCATCTCGTTCACGTTTG AACAGTTTATTGCGT TGCGT ATTTGACAAG CACT CTAC GATAAT T Т TTTG TGCT - T GAM211 TAATGACGCATATTCTACTC 197 ACGCATATTC 546 G C AT TACTC- T TAG ATA TTGGAATTAATAGTTTTGAT TACTCTTGGA TAAT ACG AT TC TTGGAA TAA TTTTG T **ATTAGTAAAAAATTTATTTC** ATTA TAAAATTTTGATCATCGTAA ATTA TGC TA AG AATCTT ATT AAAAT / A - CT TTTTAA T TAA GAT TTA GAM212 TAATGGCGGAAAACTTTTTA 198 TTCGTGTTCC 547 GC- A TTTTT **GTTATAT** GAAATGTTATATATAAAAGA AAACATTA TAATG GGAA AC AGAAAT **ATTTTTTCGTGTTCCAAACA**

ATTAC CCTT TG TTTTTA

AAA G CT--- AGAAAAT

TTA

```
GAM213 TATATAATCTTTTCATCTT 199 TATAATCTTT 548 -- TTTC CT TG CCT CG T
                           TTCATCTTGT TATAT AATCTT AT TG AGTAC GGATA AAA A
   GTGAGTACCCTGGATACGAA
   ATAAATTTATTATCCGTATT
                          GAGT
                                   TCCATAATAAGGTTTAGTAT
                                  ATATG TTGGAA TA AC TTATG CCTAT TTT A
                             ---- AT CT --- TA A
   Α
                         ΑT
GAM214 AGATACTATACCGTTGTGTC 200 CGTTGTGTCT 549
                                                TATACCGTT CT ACCG- AT
                                                 GTGT ACA CTAC A
   TACAACCGCTACATAATCGT
                          ACAACCGCTA
                                        AGATAC
   AGATTCATGTTAACACTCTA
                          CATA
                                          TCTATG
                                    CACA TGT GATG A
   CGTATCT
                         CATCT---- AT ACTTA CT
GAM215 AGCGAGTGCTTCTTCTTTAG 201 TAGGTGCTGA 550
                                                 CT ----- GG
   CGGGCTTAAAGACTGCTTTA
                          AATAACCACA AGCGAGTG TCTTCT
                                                            TTAGC GCTTAAAG
С
   GGTGCTGAAATAACCACATC
                          TCTG
                                     TCGCTCAT GGAAGG
   TGGAAGGCTTACTCGCT
                                                    AGTCG TGGATTTC T
                              TCTACACCAATAA --
                          TC
                                                G
GAM216 GAAGAGATAGATACGTGATT 202 TACGTAACCG 551
                                               GATAGA ATTAATACATTTATAT AC
   AATACATTTATATCCAACAT
                          AATCTTC
                                     GAAGA
                                            TACGTG
                                                         CCA A
   ATGGTACGTAACCGAATCTT
                                  11111
                                      111111
                                               Ш
   С
                                          GGT /
                       CTTCT
                              ATGCAT
                                ----- AT
                        AAGCCA
GAM217 TGTCTTAGAAGGAGTGTTTT 203 TAGAAGGAGT 552 TCT A
                                                      T---- CAAA
   CTTGGCAAAAGAATACCAAG
                           GTTTTCTTGG
                                       TG TAG AGGAGTGTTT CTTGG A
   TGCTTAAATATTTCTACTAC
                          CAAA
                                   11 111 1111111111 11111
   TTCA
                        AC ATC TCTTTATAAA GAACC G
                                TTCGT ATAA
                       TTC A
GAM218 TACTGAATCCGCCTAAGCGT 204 GGATAATTTA 553
                                               AA-
                                                    TAAGC- - CT---- A
   GTTCTTCTGCATGTGCGGAT
                          ACTACTATAT
                                        TACTG TCCGCC
                                                      GT GTT
                                                              TCTGC T
   AATTTAACTACTATATTGGC
                          TGGC
                                    11111 111111
                                            GGAGGACGGTA
                              ATGGC AGGCGG
                                            CA CAA
                                                    AGGCG G
                        AGG
                              TTATAT T TTTAAT T
```

GTT C T TAA

TTATAGAT A TGA TGTT CA TGTGTAG ATT /

1111111 | 111 | 111 | 11 | 111 | 111

AATATTTA TATTATAA GT GCATATC TGA T

C ATAG

GAM219 AATATTTAGTTTATTCATAA 205 TATTTAGTTT 554

ATTCATAATG

TG - T - TAC - GAAA

TTAA

TGTTAAGCATATCCTGAATA

GTAAAGTTAGATGTGTCATA

CTTGTTAGTAGTTAGATATT

GAM220 AGGATGAGTACATTTCACAG 206 TGAAATAGCT 555 TG ACATTTCAC ACT ATTG ATGT

AAACACTAGCATTGTTCAAT CGTTTCTATT AGGA AGT AGAAAC AGC TTCA

GCTCTTTAC T

GTGCTCTTTACATGGGTAAG TGTT |||| ||| ||| ||| ||| ||||

GAGTTGAAATAGCTCGTTTC TCTT TTA TCTTTG TCG AAGT TGAGGAATG G

TATTTGTTCT GT ----- G-- ATA- ---- G

GAM221 GATGGCGGCGTCGTCGTTTT 207 AGATAATATC 556 G - TC C TTTG---- TTA
TTGATCTTTATTAAATTTAG CTGAACAGCA GATG CG GCG GT GTTT ATCTTTA A
AGATAATATCCTGAACAGCA TTGC |||| || || || || || || || ||
TTGCTCGGCGTC CTGC GC CGT CG CAAG TAGAGAT /
G T TA A TCCTATAA TTA

GAM224 AGGATCTAGATAATTAATAA 210 TTCTTTGTAT 559 --- TT T T
TGATGGGTTTTCTATTCTTA TTTGGCATAT AGGAT CTAG ATAA AATAA GATGGG T
TTCTTTGTATTTTGGCATAT CCT ||||| |||| |||| |||||| |||||
CCT TCCTA GGTT TGTT TTATT TTATCT /
TAC TTA TC C T

GAM225 CAGAGTTGGGATAGTATTTT 211 TAGTATTTTT 560 - - T T T- C TATTATAT G TC T

TCTAACGTCGGTATTATATT CTAACGTCGG CAGA GTTGG GATAG ATTT TC AACGT GG

TATTA GA TACGT C

GTATCATAATATTAATCATC GTCT CGATT CTATC TAAA AG TTGCA CC ATAAT CT

ATGTA A

CACGTTTTGATAAATCTATC T T - T TT - TACTAATT A -- T

TTTAGCTTCTG

GAM226 CGTATAAATTTTAGAAATAA 212 AATTTTAGAA 561 AAA -- TA -- AAT
CATTAGCGAATTGTTGTGCA ATAACATTAG CGTAT TTTTAGAA A ACATTA GCG T

TTGATGTCGTTATTCTGAAA CGAA GTATG AAAGTCTT T TGTAGT CGT G CAGTATG AT GC TA GTT AC-

GTTTGTACATTAAGCAACAT

GAM227 TAGAGTTAAGAGAGATTAGA 213 TGGCTACAAA 562 GTTAA-- ATT ACATTA A GTC TAGA GAGAG AGAGTTTGT AGC ACAT T

GTCTCTAAATGTGGCTACAA **TCCA** Ш

CTTTTCCTTT

ACTTTTCCTTTTCCACATCA ATCT CTTTT TTTCAAACA TCG TGTA C

TCTA ACTACAC CCT ----- G AAT

GAM228 GAGTCATTCGAAGCGTCAAT 214 TTTCCGGCTG 563 CG GCGT ---- T CT

AGAATATGTCTCTTAACTAT TTGTATATTT GAGTCATT AA CAATAG AATAGT C

TTCCGGCTGTTGTATATTTA AAAT 1111111 11 111111 1111111

AATGACTT TTCAGTAA TT GTTGTC TTAT CA T

AT ATAT GGCCT - AT

GAM229 GACTTGACTAGATCGTCAGT 215 TAGCATCGCT 564 --- ---- G T TA -CGTC T

ATCC

AGTAATTTGTGCATCGTCTA TTGAGATTCT ACTTGA CTA GATC TCAG AG AT TTGTGCAT

TATTC GC G

TTCTGCATCCGCTTCGTCGA **CCAT**

ATAATGTATAGCATCGCTTT TGAACT GAT TTAG AGTT TC TA GATATGTA ATAAG

TG /

GAGATTCTCCATAGCTATCA ATC ACCTC - - GC C ---- C CTTC

AGTC

GAM230 ATAATAGTGGCCGGAGAATC 216 TTCCTCTGGA 565 AGGAA A ---GA TA

ATCATCTGGAAATAGATCTT GATGACACTA ATAAT GT GCCG AG TCATC TCT GGAAATA

TCTTCAT A

CATTAAGTTGTGAGGATATT CGGC

TCCTCTGGAGATGACACTAC TATTA CG CGGC TC AGTAG AGG CCTTTAT AGGAGTG

G

GGCGGCATTAT - G A AC - TCT --TT

GAM231 GATAATGTTTATGACAATAA 217 TATTGTTTAA 566 ΑT C----A TT ---- TAA

TAATCACGTTAGTGACGATA TCGTTTTATA GATA GTTTATGA AATAATA TCACG AGT

GACGA T

ATTTTTCGTTTTCTACTTTC GATT

GTGATATTGTTTAATCGTTT CTAT TAGATATT TTGTTAT AGTGC TCA TTGCT /

TATAGATTCTATC TTGCTAAT - TT TCTT TTT CT

GAM232 GTTGTTGACGTTGTTCCGAT 218 GGAGGTGGAG 567 Т GATATCAATA CT A

ATCAATAACTCTCTACGAAA TATCGTCAAT GTTGTTGACG TGTTCC ACT CTACG A

CGTAGGAGGTGGAGTATCGT AAT

CAATAAT TAATAACTGC ATGAGG TGG GATGC / GAM233 TAGTATTCTGGTAAAATTAT 219 TATCAGATGA 568 A C AT TCTAAATTA ATTTTGTATTAGATC TC

CTAAATTATCAGATGATTTT TTTTGTATTA AGT TT TGGTAAA TA TCAGATG

GTTGATT T

GTATTAGATCGTTGATTTCT GATC ||| || ||||||| || |||||

AAGATTAACCACTTCATCCT TCA AA ACTATTT AT AGTCTAC CAATTAG / CCAACATCTGAATTCTTTTA - T CT TTTCTTA-- AACCTCCTACTTCAC AA

TCTTTATCATAAACTA

GAM234 ATAAAGTCTTGGTATGACTC 220 ACTACCTTTG 569 CT TA ------ TTT A

CTTTCTAATATAGTACGGAC TCACCCAACT ATAAAGT TGG TGAC TCC CTA T

TACCTTTGTCACCCAACTTT TTAT |||||| ||| ||| ||| AT TATTTCA ACC ACTG AGG GAT /

-- C- TTTCCATC CAT A

GAM235 GCTGAAGTAATTTTTC 221 TGAAGTAATT 570 TG - TTTTTC C TTT ACTAGTT

TGCCTCGTTTTTACTACAAC AATTTTTCTG GC A AGTAATTAA TGC TCGTT ACTACA T

ACGATGTATTGTTTAGTTAC TG T TCATTGATT ATG AGCAG TGATGT /

TCTTGGT GT C TGTT-- T --- AACTACT

GAM236 GGGTATTAATAATATCTATA 222 ATTCACGTGA 571 AATATCTATATTT G A TAAC C

TTTCCAGCGTTAAGTGTAAC CGTGGTATCA GGGTATTAAT CCA CGTTA GTG ATTAAA

Α

ATTAAACAGTTTTAATTCAC ATTA ||||||||| ||| ||| |||

GTGACGTGGTATCAATTAAA CCCGTAATTA GGT GCAGT CAC TAATTT G

TAATTAATGCCC ATAAATTAACTAT - G T--- T

GAM237 GTTCTAGTACAATTAGACGT 223 TACAATTAGA 572 TAGTAC C TC C AATTTT- C

^

AAGTTCTGCTTGGGAATTTT CGTAAGTTCT GTTC AATTAGA GTAAGT TG TTGGG

TTAACG TAA G

TTAATCGTGCACCCAACGTA CAAG TTGATCT CATTTA GC AACCC AATTGC ATT A

TTTACATCTAGTTCTTTGAA TTC-- A T- - ACGTGCT A G

C

GAM238 TGATTTTGGTTTACATGTAA 224 TACATGTAAT 573 - TTA A TT-TG C

TACATTTTGAACTCTTTGAT ACATTTTGAA TGATTTTGGT CATGT ATACA T AA T

TTTGTATCACATGCGCCGGC CTCT ||||| |||| |||| ||| |||

AGTCA ACTGA GGCCG GTACA TATGT A TT /

C C-- C TTT GT C

```
GAM239 ACTACTATTTAATTTTACCA 225 TCGAAAACAA 574
                                              CCAT T -- GAT TTTT--
CA
   TATCTTCGAAAACAAAATA AAATAGATAT AATTTTA ATC TCGAA AACAAA AATA ATTAT
GCAGTA A
   GATATTATTTTTGCAGTACA
                         TATT
                                  TTAAAAT TAG GGCTT TTGTTT TTAT TGGTA
   AACTATTGTTTTTATATGGT
TGTTAT /
                                   T--- C AC CACC ATT TATTTT
   TTATATTCCACTTTGTTCAT
                                                               CA
   TCGGCGATTTAAAATTTTTA
   TTAGT
GAM240 GAAGAGTAATGTATAGAGGA 226 TGTATAGAGG 575 - AAT-- A CGTTT T
                        ACGTTTTGAT GAAG AGT GTAT GAGGA TGAT C
   CGTTTTGATTCGATCATTTT
   CCTCATATTAGAAACTACTT
                         TCGA
                                   1111 111 1111 1111
   C
                      CTTC TCA TATA CTCCT ACTA /
                       A AAGAT - TTT-- G
GAM241 TCCTAGTTTATCTACAGACA 227 TTTATCTACA 576 T CAGA CT TTCGT AATT
   GACTAATAATTCGTTGCATG GACAGACTAA TCCTAGT TATCTA CAGA AATAA TGCATGA
Т
   AAATTTCCTATCATGTACTT
                         TAAT
                                  TATTTCTTTGATGGATGTGC
                                 AGGATCG GTAGGT GTTT TTATT ATGTACT /
   TAGGA
                              A--- CT TC--- ATCC
                           Т
GAM242 AAAGAATTATACTTTTCTAT 228 TTTGTACAGA 577 TA T- ATAGCC TC- AA
                         CTAAGTAATT AAAGAAT TACTT TCT GCAGAA TGA A
   AGCCGCAGAATCTGAAAATC
   TCAAACTTTTGTACAGACTA
                         CTTT
                                  111111 1111 111 11111 111
                           TTTCTTA ATGAA AGA TGTTTT ACT /
   AGTAATTCTTT
                        -- TC CA---- CAA CT
GAM243 AAGTAAAGATATTGACTTGG 229 AACATCTTTG 578
                                               ATG CTT GTA TG
   ATGGTATTTTCTGACAGAAA
                         AAATCTTTAC AAGTAAAGAT T A GGATG TTTTC A
   ACATCTTTGAAATCTTTACT
                         TT
```

TTCATTTCTA A T TCTAC AAAAG / A GT --- AC

GAM244 CCGTTATAAATGTCTTTGTC 230 TATCCAGAGA 579 -TCGAT TCAA TTC GATGATATATTCAACGCTTC TATCTTGTAA CCGTTATAA ATGTCTTTG GATATAT CGC C CAATTGTGATATATCCAGAG TGG ATATCTTGTAATGG GGTAATGTT TATAGAGAC CTATATA GTG A С ---- TTA

GAM245 TCATCTAATGCCGTAGCCGT 231 TACTTCTTTA 580 T C- GCCGT TAC TACA AAGTACGTGGTTTACAACAT AAGTACTCGT TCATCTAA GC GTA AAG GTGGTT A TAGCTACTTCTTTAAAGTAC TTTG 1111111 11 111 111 111111 **TCGTTTTGGATGA** AGTAGGTT TG CAT TTC CATCGA /

T CT GAAAT TT- TTAC

GAM246 TGTGATTGATTCCCACTAAT 232 TCTAAATTCG 581 GA CA - GA-- CCAC
GAAGATGCCACATATCCATC GCAGGAAAGT TGTGATT TTCC CT AAT AGATG A
TCTAAATTCGGCAGGAAAGT CACA ||||||| |||| |||| |||||
CACA ACACTGA AAGG GG TTA TCTAC /
-- AC C AATC CTAT

GAM251 ACACCAGAAAAGACGGCTTG 237 TGAGATCAAC 586 A AAAGAC T - CT TCTAAT ATAA Α AGATCAACTTTATCTAATGG TTTATCTAAT AC CCAGA GGC TGAGA TCAA TTA GGTTT AACGAAGG G TTTATAAAACGAAGGAGGCC GGTT CTAAA TTCGTTCGAAATCTAATTTG TG GGTCT CCG ATTTT AGTT AAT TTGCTTCC / C ----- C C T- ---- GC--ACTTTTACGCCTCTGGCGT

GAM252 TGTGAGAAGTTTGCCTCGTT 238 TGGAATAGTT 587 GA-- GC C T T -- TTA----- TT

AAGGTCTTCCATTTAAATAT TTTTACTAGT TGA AGTTT CT GT AAGG CT TCCAT AATA ATATAAACA T AAAG TATATAAACATTTGTGTTTG **TATCTTATTCGTCTTTTATG** ATT TCGAA GA CA TTTT GA AGGTA TATGTTTGT T AACG AT T T T TA TTTTCTGC TC GAATAGTTTTTTACTAGTAA G AGCTGCAATTACA GAM253 ATAGATGCCATGTTAAAAAT 239 GATGCCATGT 588 T AAAAAT- CG- TCGA ATAGATGCCA GTT GTC CCG C GTCCGCCGTCGACTTTTTGG TAAAAATGTC AACGATTGATAAAAGCTGGT CGCC III III **GTTTAT** TATTTGTGGT CGA TAG GGT / - AAATAGT CAA TTTT GAM254 ATAGCATCATCTTTAGATCA 240 AGCATCATCT 589 GC CTTTA C AA- TACCTT TTAATTGTTACCTTCCCCAA TTAGATCATT ATA ATCAT GAT ATT TTGT TACAACCAAATCATCATGAT AATT 111 11111 111 111 **ATAT** TAT TAGTA CTA TAA AACA / A- ---- C ACC TAACCC GAM255 CTTTGGCTTATAAAATACAA 241 TAAAATACAA 590 AAT------ CCC TT-- C-- CT ATGACATTCC ATACA GACATT TTATG TAAT TTAAT ATGACATTCCCTTATGTTTA TT T ATCTTAATCTTTTCTTTAGT CTTA TATGT TTGTAG AATAT ATTG AGTTA GA / TATTGAATCGTTACAATTAT GAATCCAAAAACCTTTT TAA TAAC CTA TT TT AAAATGATGTTTTTCCAAA **AACCTAAGTGTATTTAAAAT** AGATGCCATG GAM256 TACGACACTGATAAACCGCA 242 ACACTGATAA 591 C T CGCA ---- G T ACCGCATTAT TACGA AC GATAAAC TTATCTG T GACAT T TTATCTGTGGACATTTTAAT GTTGGTATCTAGATAACAAT CTGT 11111 11 1111111 1111111 1 111111 GTTTATCGTATTGTA ATGTT TG CTATTTG AATAGAT G TTGTA T CTAT G A TAAC Α -GAM257 TGTATCCTCAACATAATCAA 243 TTTATTGGGT 592 --- C AA- - AG- AAT AGTGTTGATG TGT ATC TCAACAT TCAATGAG CC GT C TGAGCCAGGTAATCAAGACA TCGGATTTATTGGGTAGTGT ATTC 111 111 1111111 11111111 11 **TGATGATTCCGCA** ACG TAG AGTTGTG GGTTATTT GG CA / CCT T ATG A CTA GAA GAM258 GATTTGGCCAAATGTATCCA 244 TAACTAGTGT 593 CC G CATCATAA--- GG ATAA G GTAAAC Т

AGAAAACAGA GG AAAT TATC

TCATAATCTGGGTTATAAAC

GGGTGTAAACAAGAATATAT GATA

AAGAATATA G

TCTG TT AC GGT

GTTTATATTTTTTAACTAGT GTAGAAAACAGAGATAGTAA ATAGATAGTTTTTCCAGATC

GTC

CC TTTG ATAG AGAC AA TG TCA TTTTTATAT T
TT - ATAAATGATAG AA GATG A AT---- T

GAM259 AGCGAAGCTATCATCGTCCA 245 ATATTATCTA 594 TATCAT CC-- C ATT
ATATCTCATTCCTAGAAATA CGTCATTGTT AGCGAAGC CGT AATAT TC C
TTATCTACGTCATTGTTTTG TTGT |||||||| ||| ||| |||
TT TTGTTTTG GCA TTATA AG /
TTACT- TCTA A ATC

GAM260 GTGGTATTATACTCATGCCT 246 TATTATACTC 595 A AT- TCAT-- A AA---- - G T
AGTAATAGTCTCTTTGCGTT ATGCCTAGTA GTGGT TT AC GCCT GT TAGTCT CTTT CG

T
GACGGAAAGCAGACTAGAAA ATAG ||||| || || ||| ||| ||| ||| ||| ||
TAACAGGCTAAAATGTTCAG TACCA AG TG CGGA CA ATCAGA GAAA GC G
ACACCAT C ACT TAAAAT - ATAAAG C G A

GAM261 GGCAAATAATTAATCAGTGA 247 AACGATGTTA 596 TA AATCA AG T AGT
TAGATTGTTTACATACAGTA CCAATCGTTT GGCAAA ATT GTGAT ATTGTTTACA AC A
TGTCGTTTGTAAACGATGTT GCT |||||| ||| |||||||||||||||||
ACCAATCGTTTGCT TCGTTT TAA CATTG TAGCAAATGT TG T
GC C---- -- T CTG

GAM262 GGAATTTTGACAATTCTCTT 248 AGTGAAAAGA 597 A - TTC----- GA C A
TGAGCCGATAGTATCAGTGA ATGTAAACTT GG ATTT TGACAA TCTTT GC GAT G
AAAGAATGTAAACTTTGTCA TGTC || || || || || || || || ||
TAAGTACC CC TGAA ACTGTT AGAAA TG CTA /
A T TCAAATGTA AG A T

```
GAM265 TTTTATCGTTTTATCTATTG 251 TTTATCTATT 600 C TT T T - T TAA
                        GATGGTGTAT TTTTAT GT TA CTATTGA GGT GTA GAAC T
   ATGGTGTATGAACTAATTTA
   CGTTCTACAACTTTTAATAG
                        GAAC ||||| || || |||| ||| |||
   TGTCGCTGTAAAA
                             AAAATG CG GT GATAATT TCA CAT CTTG T
                       TCT - TA - CAT
GAM266 TATTGGATTGTATATTTTAT 252 TAAAATGCTA 601 TT T T T - A ATT
   TTTATATTTTATATTTTATA
                       ATGTCAAGTT TATTGGA GTA ATTT AT TTA TATTTTAT TTTTAT T
   TTTTGTAATAAGAATAAAAT
                        TATT
                                 GCTAATGTCAAGTTTATTCC
                                ATAACCT TAT TGAA TG AAT GTAAAATA AGAATA T
                          -- T C T C - ATG
   AATA
GAM267 TGTTAATTTTACTAGATCGT 253 TTCCGTAGTC 602 A TACTA GT TC TA T
   CATGGGTCATAGAATTTATA
                         CATGGATCCA
                                    TGTTA TTT GATC CATGGG A GAATT A
   GGTTCCGTAGTCCATGGATC
                         AACT
                                   CAAACTAGCA
                           ACGAT AAA CTAG GTACCT T CTTGG T
                       C C---- -- GA GC A
GAM268 GGAGTATTCCAAGAGTTTTA 254 AAGAGTTTTA 603 A- CAA - TT- A------ AT
   GTTGTCTAGTATTTAACAAG
                        GTTGTCTAGT GG GTATTC GAGTTT TAG GTCT
                                                                    GT T
                         ATTT
   AGAAGAGATTTCAACAGACT
                                 Ш
   GTTTATGAACTCGAATGCCG
                                CC CGTAAG CTCAAG ATT CAGA
                                                               CA /
   CC
                       GC --- T TGT CAACTTTAGAGAAGAAA AT
GAM269 GTTTTCTAAAGATGTCATTA 255 TGAATGGATT 604 T A CATTAAACCCTCGATC TG
TATCA C TTA
   AACCCTCGATCATGAATGGA TATCATCATC TT TCTA AGATGT A AATGGATT TCAT
GTTT T
   TTTATCATCATCGTTTTTAT
                        GTTT
                                 GTTGGACATGAGCTTAGTCC
                                AG AGAT TCTACA
                                                  T TTGCCTGA AGTA CAGG
                                 C A CC-----GT TTCG- - TTG
   GTTTGTCCACATCTATAGAC
   GAC
GAM270 TCGGATGACCATATATTTAT 256 GATGACCATA 605
                                            GAT --
                                                    ΑТ
                                                          TATTA
                        TATTTATTTT TCG GACC ATATATTT TTT CAGTTT T
   TTTCAGTTTTATTATACGCA
   TAAATTGTAAAAAATATGTT
                        CAGT
                                  AGGTTTACGA
                           AGC TTGG TGTATAAA AAA GTTAAA
                      AT- AT
                             - T TACGC
GAM271 TATAAGGTGATTGGAATGGG 257 TAAGGTGATT 606 AG TT ATGG
                                                          TACAACA
   ATAAATACAACAATTATATT
                        GGAATGGGAT
                                    TATA GTGA GGA GATAAA
   TTTTATCATATCCTTCACGC
                        AAAT
                                  TATA
                       ATAT CACT CCT CTATTT
                                            Т
                       CG T- ATA- TTTATAT
```

TGCCAGAGTA AG AACC - - GC A A

GAM274 ATAGATATGATAACAGGAAT 260 GATATGATAA 609 - A ATAA A TA- T AAATA
AACATCTTTAGGTTTAAAAT CAGGAATAAC ATAGAT ATGAT ACAGGA C TCTT GGT TA A
AATTATATACACCAGTAGGA ATCT |||||| ||||| |||| |||| |||| ||||
GTCTTGTCATCGTCATCTAT TATCTA TGCTA TGTTCT G AGGA CCA AT /
C C ----- TGA C ATATT

GAM275 GAGTCGTCCATATTTTATTC 261 CGTCCATATT 610 TC CATATT - CC ----- A TGAGGCCTAATAGACCTCTG TTATTCTGAG GAG GTC TTATTCT GAGG TA ATAG C GCCT TACATAAAATATTCCTCTAG $\Pi = \Pi$ 1111 CTC CAG AATAGTAGACATCTC GATAAGA CTCC AT TGTC C TA AT---- T TT AAAATACA T

GAM276 GGATATTCTTGATACATTCT 262 TATGGCAAAT 611 T T T TTCTTTTT A TACAT- ------ CA TTTTATACAGTGAATTGCAT CTGCAATCAC ATA TCT GA ACA ATACAGTGA TTGCA CC GATA G **ACATCCGATACAGCATTATC TGTA** Ш CATATATGGCAAATCTGCAA TGT AGA TT TGT TATGTCACT AACGT GG CTAT С TCACTGTATTGTTTTTAGAT T T T ------CTAAAC TATATAC

GAM277 GTAGTCACCGTAAATTTATC 263 CACCGTAAAT 612 A AA T TCACC A A
ACCAGAAATACTAATATCTA TTATCACCAG GT GTCACCGT AT TA AGA AT C
TCTTTATGTCCATGGTGATC AAAT || |||||||| || || || ||
AC CA TAGTGGTA TG AT TCT TA T
C CC T TTCTA A A

TGTCC

GAM278 TATCTATCAGATTATTATGT 264 TAAGGTACTT 613 ----- AT AT-- GG - - ATAAA GTTATAAGGTACTTTTTCTC TTTCTCATAA TATCTATCA GATT TATGTGTT AA TACT TTTT CTCATA C

ATAATAAACTAGAGTATGAG TAAA |||||||| ||| ||| ||| ||| |||

TAAGATAGTGTTTTCAAAA GTAGGTAGT CTAA ATATACAA TT GTGA AGAA

GAGTAT /

CATATAAATCTAAAATTGAT TAAAAT -- AACT TT T T GAGAT

GGATG

GAM279 AAAGTATTGGTAATCGTGTC 265 TTTGTTCTAT 614 - TAATCGT CA TA TAAAAAG

TTATTTTT TA

ATATTAGTATAAAAAGTGAT CAACTACCTA AAAGTATT GG GT TAT GTA TGAT

ACAAAAT T

TTATTTTTACAAAATTATGT TAAA ||||||||| || ||| ||| ||||

ATTTTGTTCTATCAACTACC TTTCATAA CC CA ATA CAT ACTA TGTTTTA /

TATAAAACTTTCCAAATACT A TTT---- AA TC CA----- TCT----- TG

 TT

GAM280 ATGGCAGATCCAATTTGTAA 266 ATCCAATTTG 615 CA - AA TAAAA C ---- GAA

AAAATCAGCGGTTGAAAGAA TAAAAAATCA ATGG GAT CC TTTG AAT AGCGGT TGAAA T

TATATTTCACGTTATCGTTA GCGG |||| ||| ||| ||| |||| ||||

GTTAGGCTCAAAGGTATCCC TACC CTA GG AAAC TTG TTGCTA ACTTT /

AT -- T -- TCGGA A TTGC ATA

GAM281 CGTGAAGATATCATTTCCCA 267 TCATTTCCCA 616 AA TC CA---- - TT TT

TGTATTTTTTTATGATTGT TGTATTTTTT CGTG GATA ATTTCC TGT AT TT T

TCACGCG GCGC CTAT TAAAGG ACG TG AG /

A- TT TATTTG A TT TA

GAM282 CTTGGTATAATTATCAAAAT 268 TGGAATTGGG 617 TTATCAAAATA GA- CG-- C

ACAAGACGTCGCTTTTAGCA CTCCTTATAC CTTGGTATAA CAA CGT CTTTTAG A

GCTAAAAGAATAATGGAATT CAAG ||||||||| ||| ||| |||

GGGCTCCTTATACCAAG GAACCATATT GTT GTA GAAAATC /

CCTCGG----- AAG ATAA G

GAM283 TACCTTATCAAATGATCCTG 269 TATCAAATGA 618 TT- A- G C T CA T TA

TTGGGCATTTTCTACATTGA TCCTGTTGGG TACC ATC AAT AT CTG TGGG TT TC C

TGACATCCATTAGAATAATT CATT |||| ||| ||| ||| ||| ||| ||| |||

GGGATTGTGGTA ATGG TAG TTA TA GAT ACCT AG AG A

TGT GG A A T AC T TT

GAM284 TCGCTACTTGGTTAGTGTAT 270 TTAATAATTA 619 CTACTT T T C TGA

TATTCAGTATGAAGACCTAT CTTATCTTTT TCG GGT AGTG ATTATT AGTA A

TAATAATTACTTATCTTTTG GACG ||| ||| ||| |||| ||||

ACGA AGC CTA TCAT TAATAA TTAT G

AGTTTT T - - CCA

GAM286 TTTGGTCGATGTAAAATTTT 272 TGTAAAATTT 621 CGA AAATTTTT AAA TTGTCGATAA **TGTCGATAAAAATTAAAAAA** TTTGGT TGTA GTCGATAA AAATTAA A **TAACTTAATTTATTGAT AAAT** 111111 1111 CTCGTGTGTACAACCGAA AAGCCA ACAT TAGTTATT TTTAATT T --- GTGTGCTC Α CAA

GAM287 GATTCTCGTCGTACCCACCG 273 TCGTACCCAC 622 T C- CC G T TAA

AGAGCGTGTGCGTAAAACAT CGAGAGCGTG GAT CTCGT GTAC ACCGAGA CGTG GCG A

CGCCATGATTTCGGTTGTAC TGCG ||| ||||| |||| |||| |||| ||||

ACACGAGATC CTA GAGCA CATG TGGCTTT GTAC CGC A

- CA T- A - TAC

GAM288 CGTATTATACGCATTATAAC 274 TTCGTTGTAT 623 CGCAT T C GTA
TGACAGCGTCGTAAATAGAT ATAGTACG CGTATTATA TATAAC GA AGCGTC A
GTTTCGTTGTATATAGTACG ||||||||| |||||||
GCATGATAT ATGTTG CT TTGTAG /
----- - ATA

GAM289 GGTAGCAATTTATGGAACTT 275 TAACGGAGAT 624 --- T AAC **GGTCATT** CAC GAACAA TAAAAATATG GGT AGCAATT ATGG TTATATT ATTTTTGT ATATTGGTCATTATTTTTGT Α AG CACAGGAACAAACTAATACT **ACGC** 11111111 11 ATAACGGAGATTAAAAATAT CCG TTGTTAA TACC AGTATAA TAGAGGCA TC 1 GACGCCCATAATTGTTAACG AAAT---CAA - CGC ATA ATAATC CC

GAM290 GTATCATAATTTTCAAAGAT 276 GTTGTTGTTT 625 T AAT A- A TTA- TACTTCC
GGTCGTTTAGACAATAGTAC GCGACTGCTT GTA CAT TTTC AAG TGGTCGT GACAATAG
A
TTCCATTATTTTGTTGT CCGA ||| ||| ||| |||| |||||||||

TGTTTGCGACTGCTTCCGAA CAT GTA AAAG TTC GTCAGCG TTGTTGTT T ATACATGTAC - CAT CC - TTTG TTATTAT

GAM291 TGTTCTCTATAGTTACATTA 277 TGTGACACCC 626 TA------ - TTA
ATTAAAATTTTATATGTGAC ATTCATCTGG TGTTCTCTA GTTACAT TAA A
ACCCATTCATCTGGAGAATA AGAA ||||||||| |||
ATAAGAGGT CAGTGTA ATT A
CTACTTACCCA T TTA

```
GAM292 CATCTTTTACCAACACAAG 278 TCTTTTACCA 627 CT ACACAAA ATATTT TT -
GATAAT ACA
   GGTGGATATTTGTTCATTGG
                         ACACAAAGGG
                                      AT TTTACCA GGGTGG G CATTG GAGTT
AATAC C
   AGTTGATAATACACACA
                         TGGA
                                   AAGTATTTGGATTCACGGTG
                                 TA AGATGGT
                                            TCCATC T GTGGC CTTAG
                                                                   TTATG
/
   GGTTACGACTACCTCAGACT
                                 AG
                                      CAGAC-- AGCAT- GG A GT---- AAA
   GGTAGAGAATG
GAM293 GTACGCGTGTCGATTCATCA 279 TGAGGCTACC 628
                                                       A-- AT
   AGGTATATAAACCTGGGGAT
                         TCGACATACG
                                      GTACGCGT GTCGA
                                                      TTCATC AGGT A
   GAGGCTACCTCGACATACGT
                          TGTG
                                   GTGC
                        CGTGTGCA CAGCT GAGTAG TCCA T
                        TA CCATCG GGG AA
GAM294 TAATTTTTATAAACTAACA 280 TAACATGTTA 629
                                             TT AAAC T A-- G
                                     TAATTT TAT TAACAT GTTA TT A
   TTGTTAATTGAAAAGGGATA
                         CAGAATATAA
   ACATGTTACAGAATATAAAT
                        ATTA
                                  TΑ
                      ATTAAA ATA ATTGTA CAAT GA A
                        T- AGAC - AGG A
GAM295 AACACGGCAGAATATCGCCC 281 TGAGATATTC 630
                                                         GC----- TACT
   ATATACTTTATTTATGGATT
                        TGAGCGCTAA AACACGG
                                                  CAGAATATC CCATA T
                         CCTT
   TGAATGAGATATTCTGAGCG
                                   CTAACCTTATCCGTGTT
                               TTGTGCC
                                           GTCTTATAG
                                                       GGTAT /
                        TATTCCAATCGCGA AGTAAGTTTA TTAT
GAM296 AGTAGCATACGGATGCTCGA 282 TGTACAAATT 631
                                             GCA ---- - T C ATAT GT GT
TATT--- GT
   TGTACAAATTGATATGGTCG
                         GATATGGTCG
                                    GTA TACGG ATGC TCGA GTA AAATTG G C
CG
    CA C
   TCGTATTCAGTCAATGTTAC
                         TCGT
                                  AGTCGGTGGTCCAATTTTTA
                                 CAT ATGCC TACG AGCT CAT TTTAAC C G GC
                                                                      GT
   CTTCGACGCATAGTCCCGTA
                                  AAC CTGA C T T ---- TG TG TGACATT AA
   CAATACT
GAM297 CCCTATTTTCAATCCCCATG 283 CATGGAGTAG 632 AT TCAA CCA - TCA T A C
   TTTCCTCTTCAGTCTTCTCA
                        ATGATAGAGG CCCT TT TCC TGTTTCC TCT GTCT CTC CAT
GTC A
   CATCGTCTAATAGACATGGA
                         GGAA
                                   1111 11 111 1111111 111 111 111 111
   GTAGATGATAGAGGGGAACA
                                 GGGA AA AGG ACAAGGG AGA TAGA GAG GTA CAG
```

/

GATACATCCTT

GAM298 GAAAAGACGTGGGTACTAAA 284 AAGTTGGCTG 633 - C AA T C CA- A T GTTGGCTGTCATCTTACCAA TCATCTTACC GAAAAGACGTG GGTA TA GT GG TGT TCTT CCAAT G

GAM301 GACATGGTAAGATTACTGGC 287 TGGTAAGATT 636 T-- G ACTG - TCTAA
TCGTTTTCTAACTCCATGAA ACTGGCTCGT GACA GGTAA ATT GC TCGTTT C
TGATGCAAAATATTACCCTT TTTC |||| ||||||||||
TGTC CTGT CCATT TAA CG AGTAAG /
TTC A AA-- T TACCT

ATA-- CCTT A TAA

CAAAC

GAM303 ACTGTATGCTCCTAGCGGAG 289 TGTATGCTCC 638 A - A AATCCTTCG T
TTAATCCTTCGTTGTTTCTA TAGCGGAGTT ACTGT TGCTC CT GCGGAGTT TTGT T
CAAAGTCTCTCGACTCCGCG AATC ||||| ||||||||| |||||||
AGAGAGTAACAGT TGACA ATGAG GA CGCCTCAG AACA C
- A G CTCTCTGA- T

C AACC--- - ACG

CTACATTT TCT -- AGAT GAM305 ATAGAGTCTACATTTATATG 291 TCTACATTTA 640 TATGTTCTCT **TTCTCTATCGGTGAGATACA** ATAGAGT ATATGT CTATC GGTG A

AATACCTAGATAGTCGCGTA ATCG

TCTTCATCCATTCTAT TATCTTA TATGCG GATAG CCAT /

CCTACTTC CT- AT AAAC

GAM306 ATATCTTCAGTACATCGTTT 292 TACAAATAGC 641 T T G C---A A GTAAAGTAATTATTATACAA AGTGTAGTGC ATA CT CA TACAT GTTTGTA AGT A ATAGCAGTGTAGTGCAGTAT AGTA 111 11 11 11111 111111111111 TAT GA GT ATGTG TAAACAT TTA T

> - C G ACGA A T

GAM307 ATTGCACGAAGTTCTTCGGC 293 ATTGTCCCAC 642 C C TTTCAT-- G A AA TTTAATG TC CG

GGAAGTGAAT GTTCTT GG GGT GGA TCATTTCTG TG ACA GGTTTTCATGGAGTCATTTC

ATC CA C

TGATGAAACATTTAATGATC CCTT | | | |

TCCACGCAATTGTCGATATT CGAGAA CC CCA CCT AGTGAAGGC AC TGT TAG

GT A

GTCCCACGGAAGTGAATCCT A A CTCAACTT A - CC TA---- CT TA **TCAACTCACCACCAAAGAGC**

TCCGTTGCAT

GAM308 CCACATCCTTTATTAATAAT 294 TGAGAAAGAC 643 A TT ATAATAA AA TCTAT AATTTAACAATCTCTATATC CAGTAGTATT CC CATCC TATTA TTT CAATC Α TATGGTTGAGAAAGACCAGT GGAT 11 11111 11111 III IIIII AGTATTGGATGGG GG GTAGG ATGAT AAA GTTGG /

> GACCAG- GA TATCT TT

GAM309 GAAGGTAGTAATGTTAGTAG 295 TAGTTTATCA 644 GTA TTA A TAT G GAAGGTA ATG GTAGAC ATTTT CTGT A ACAATTTTTATCTGTGAAAA TATACCTTT CAGGAAATAGTTTATCATAT 111111 111 11111 11111 1111 ACCTTT TTTCCAT TAC TATTTG TAAAG GACA A

A-- --- A --- A

GAM310 GCAATACTTCTGGTCTCGGA 296 TTCTGGTCTC 645 ACTTC A ----- C

GCAAT TGGTCTCGGATT GG CGT G TTAGGCGTCGTTACGTATAT GGATTAGGCG

ATCCACCAATCCGAGACCAT TCGT Ш

TGATTGC CGTTA ACCAGAGCCTAA CC GCA T

> GTT--- ACCTATATAT T

GTTTTCTACACTCACCTGGT CGTTATCGGT GGC TT TTAT TTAT GT TTTC TACAC TTATAAACGTGTGCGAGACA TTTC 111 11 1111 1111 11 1111 11111 CAAATAATAATAATGTAACG TCG AA AATA AATA CA AGAG GTGTG CT C TGT AT AA C C CAAATATT ATT TATATTTTAAAGGA GAM312 TCATAATATTAGAATATATT 298 TAGAATATAT 647 TTA TAT TTAAAGGACTTATCGTTATT TTTAAAGGAC TCATAAT AGAA CTTATCG TTA T ATATTTTTTAACTCGGTGA TTAT 1111111 1111 **GGTATCTTCTTAACTTTCTC** AGTATTA TCTT GAGTGGC AAT T AGC TCAATTCTTCTATG GAATTATGA TC- TTT GAM313 TTCTGAAAGAGATGAGAAGC 299 TCTATGGGTC 648 GAAAG AAA CCC CATCTATGAG TTCT AGATG G GCCTGTAGAGAGA T CTGTAGAGAGACCCTGCGCT TTCTCTATGGGTCCATCTAT AA **GAGAA** AAGA TCTAC C TGGGTATCTCTTT G GTA-- - --CGC GAM314 TTTCTTTTCACGATGCATCT 300 ATAAGTGGAC 649 TC- GA- ----- GA CGT TTTCTTT AC TGCATCT TATT ATGA T TATTGAATGACGTTTTCTCA ATATAGATGC TAAGTGGACATATAGATGCA AGAA GTGA TACT / GAAGTAATGAAGAAA AAAGAAG TG ACGTAGA TAA AAG TATACAG A- CTT GAM315 TTTTTATAAACATGAAACCA 301 TGTCTAAATG 650 --- AAACCACT- AAA TAATTA G TTTTTATA AACATG GTCT TG TGATCTT CTGTCTAAATGTAATTATGA TAATTATGAT ATT A TCTTGATTTATAGATGAAGA CTTG IIII II **TCAGCCTTTAGAGGATTTTA** TAGG AT ACTAGAA TAG T AAAAGTAT TTGTAT **ACCAGTATGTTTAATATGAA** AAT GACCAATTT AG- TTCCG-G A AΑ

GAM316 ATGTAGTAATCGTTGTCGTG 302 ATGGTTCTTT 651 C TG GTGTTCC-- TCC TTCTCC T TTCT TTCCTGTTTCCTACTTCTCC CCGTACAACA AT GT TC TGTT TAC **AATCAT** ATAGATATT TCT A AATCATATAGATATTTTCTT TACT IIII III **TCTATCATGGATAATATTTG** TA TA AG ACAA ATG TTGGTA TGTTTATAA AGG / TAATGGTTCTTTCCGTACAA - GT ATTTGTCAT C-- CCTTTC Α T TACT CATACTGTTTAGATGATATT

Т

GCGCAT

GAM317 GAATGACTCGTCCCTTAATA 303 TGACTCGTCC 652 GA G TAATA AGTAG - TCT CTTAATAGGC GAAT CTC TCCCT GGC GCTA GTA T GGCAGTAGGCTAGTATCTTT TTTACGTAGTAATCGTCGTA AGTA **GGGAGAGAATTC** CTTA GAG AGGGA CTG TGAT CAT /

A- - TG--- CTAA- G TTT

GAM320 ACCTCTTTCTGATGGAGTCG 306 TGATGGAGTC 655 TTTCT- T TC AAG CT TC TCTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT C GA GGAG GTAAAA TTTTAT CTT TC GA GGT A

GAM321 ACCTCTTTCTGATGGAGTCG 307 TGATGGAGTC 656 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT A

GAM322 ACCTCTTTCTGATGGAGTCG 308 TGATGGAGTC 657 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT A

GAM323 ACCTCTTTCTGATGGAGTCG 309 TGATGGAGTC 658 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT A

```
TTATCTCTTTCTCTCTCGA
TGGT
1324 ACCTCTTTCTGATGGA
```

GAM324 ACCTCTTTCTGATGGAGTCG 310 TGATGGAGTC 659 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT A

CTCTCTTCGATGGTCTCACA TTTA || || || ||| ||| ||| || || || ||

AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA A GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA

TTATCTCTTTCTCTCTCGA
TGGT

GAM325 ACCTCTTTCTGATGGAGTCG 311 TGATGGAGTC 660 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT A

CTCTCTTCGATGGTCTCACA TTTA || || || ||| ||| ||| || || || ||

AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA A GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA

TTATCTCTTTCTCTCTCGA

TGGT

GAM326 ACCTCTTTCTGATGGAGTCG 312 TGATGGAGTC 661 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT A

CTCTCTTCGATGGTCTCACA TTTA || || || ||| ||| ||| || || || ||

AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA A GATGGAGTCGTAAAAAAGTT CTTCT TC GAA CT GT TCTTT - AATTATA

TTATCTCTTTCTCTCTCGA

TGGT

GAM327 ACCTCTTTCTGATGGAGTCG 313 TGATGGAGTC 662 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT A

CTCTCTTCGATGGTCTCACA TTTA || || || ||| ||| ||| ||| || || ||

AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA A GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA

TTATCTCTTTCTCTCTCGA

TGGT

GAM328 ACCTCTTTCTGATGGAGTCG 314 TGATGGAGTC 663 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT A

CTCTCTTCGATGGTCTCACA TTTA || || || ||| ||| ||| || || || ||

AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA A
GATGGAGTCGTAAAAAAGTT CTTCT TC GAA CT GT TCTTT - AATTATA

TTATCTCTTTCTCTCTCGA

TGGT

GAM329 ACCTCTTTCTGATGGAGTCG 315 TGATGGAGTC 664 TTTCT TG TC AAG CT TC TCTTC T CTCACAA

TAAAAAAGTTTTATCTCTTT GTAAAAAAGT TC GA GAG GTAAAA TTTTAT CTT TC GA GGT A

CTCTCTTCGATGGTCTCACA TTTA 11 11 111 11111 11111 111 11 11 11 AG CT TTC TATTTT AAAATG GAG AG CT CCA AAAATATTAAACCTCTTTCT GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA CT GT TCTTT - AATTATA **TTATCTCTTTCTCTCTCGA TGGT** CT TC GAM330 ACCTCTTTCTGATGGAGTCG 316 TGATGGAGTC 665 TTTCT TG TC AAG TCTTC T CTCACAA TC GA GAG GTAAAA TTTTAT CTT TC GA TAAAAAAGTTTTATCTCTTT GTAAAAAAGT GGT Α CTCTCTTCGATGGTCTCACA **TTTA** AAAATATTAAACCTCTTTCT AG CT TTC TATTTT AAAATG GAG AG CT CCA CT GT TCTTT - AATTATA GATGGAGTCGTAAAAAAGTT CTTCT CT TC GAA **TTATCTCTTTCTCTCTCGA TGGT** GAM331 ACCTCTTTCTGATGGAGTCG 317 CGTAAAAAAG 666 TTTCT TG TC CT C TTC--AAG T CTCACAA TAAAAAAGTTTTATCTTTCT TTTTATCTTT TC GA GAG GTAAAA TTTTAT TTCT TC GA GGT CTCTTCGATGGTCTCACAAA CTCT AG CT TTC TATTTT AAAATG GAGG AG CT CCA AATATTAAACCTCTTTCTGA Α **TGGAGTCGTAAAAAAGTTTT** CTTCT CT TC GAA CT T TCTTT - AATTATA **ATCTCTTTCTCTCTTCGATG** GT GAM332 ATTAATTATAAAATTATGTA 318 TAAGTTAGTA 667 TA-- - A-- - T **TATGATTTACTAACTTTAGT** ATACATAAAT ATTAAT TAAAATT ATGTAT TGATTTA CTAAC T **TAGATAAGTTAGTAATACAT** TTTA TAATTA ATTTTAA TACATA ATTGAAT GATTG T AAATTTTAGTATATTAAT **TATG** ATG A A GAM333 GATGGAGTCGTAAAAAAGTT 319 TGATGGAGTC 668 T TC AAG -- T TCCTTC T CTCACAA TTATCTCTTTCTCCTTCGAT GTAAAAAAGT GA GGAG GTAAAA TTTTAT CTCT TC GA GGT Α GGTCTCACAAAAATATTAAA TTTA 11 1111 111111 111111 1111 11 CCTCTTTCTGATGGAGTCGT CT TCTC TATTTT AAAATG GAGG AG CT CCA Α **AAAAAAGTTTTATCTCTTTC** GAA CT T TCTTT- - AATTATA T --

GAM334 GATGGAGTCGTAAAAAAGTT 320 TGATGGAGTC 669 T TC AAG -- T TCCTTC T CTCACAA

TTATCTCTTTCTCCTTCGAT GTAAAAAAGT GA GGAG GTAAAA TTTTAT CTCT TC GA GGT

Α

CCTCTTTCTGATGGAGTCGT CT TCTC TATTTT AAAATG GAGG AG CT CCA A
AAAAAAGTTTTATCTCTTTC T -- GAA CT T TCTTT- - AATTATA

GAM335 GATGGAGTCGTAAAAAAGTT 321 TGATGGAGTC 670 T TC AAG -- T TCCTTC T CTCACAA

TTATCTCTTTCTCCTTCGAT GTAAAAAAGT GA GGAG GTAAAA TTTTAT CTCT TC **GA GGT** Α TTTA GGTCTCACAAAAATATTAAA CCTCTTTCTGATGGAGTCGT CT TCTC TATTTT AAAATG GAGG AG CT CCA AAAAAAGTTTTATCTCTTTC GAA CT T TCTTT- - AATTATA GAM336 GATGGAGTCGTAAAAAAGTT 322 TGATGGAGTC 671 T TC AAG CT TC TCTTC T CTCACAA GA GGAG GTAAAA TTTTAT CTT TC GA GGT TTATCTCTTTCTCTCTCGA GTAAAAAAGT Α TGGTCTCACAAAAATATTAA TTTA **ACCTCTTTCTGATGGAGTCG** CT TCTC TATTTT AAAATG GAG AG CT CCA Α TAAAAAAGTTTTATCTCTTT GAA CT GT TCTTT - AATTATA С GAM337 GATGGTCTCATAAAAAAAGT 323 ATAAAAAAAG 672 G TCATAAAA TTTTAC ATTCT-CTCTCTT TG TTTACAAAAATATTTTTATT TTTTACAAAA AT GTC AAAG AAAAATATTTTT TGA G CTCTTTCTCTCTTTGATGGT ATAT $\parallel \parallel \parallel$ Ш CTCATAAAAAAAGTTTTACA TG TAG TTTC TTTTTATAAAAA GAAA ACT / AAAATATTTTTATTCTCTTT G TTTCTCTC TCTTA-CATTTT AAAAT-- CT **CTCTCTTTGATGGTC** GAM338 GGAGTCATAAAATATTTTTA 324 TAAAATATTT 673 TC Α T- T TCTCTTC T CTCACAA TTATTCTCTT GGAG ATAAAAT TTTTTAT CTCT TC TTCTCTTTCTCTCTCGATG **GA GGT** Α GTCTCACAAAAATATTAAAC TCTC 11 111 CTCTTTCTGATGGAGTCGTA TCTC TATTTTG AAAAATG GAGG AG CT CCA Α CT T TCTTT-- - AATTATA AAAAAGTTTTATCTCT GAM339 TTAAACCTCTTTCTGATGGA 325 TGATGGAGTC 674 CTTTCT TG TC AAG -- T TCCTTC T CTCACAA GA GAG GTAAAA TTTTAT CTCT TC GTCGTAAAAAAGTTTTATCT GTAAAAAAGT GA Α GGT CTTTCTCCTTCGATGGTCTC TTTA 11 111 111111 111111 1111 11 11 111

GTTTTATCTCTTTCTCCTTT CTCACAAAAA GAM340 TTTTTCTTTGGTACAAAATT 326 TCTTTGGTAC 675 Т TT CACAA ---- CA A TCACACAAGTTTTTATACAG AAAATTTCAC TTTTTCTT GGTACAAAA TCA GTTTT TATA GACAA T ACAAATTCTTGTCCATATAT **ACAA** 1111111 11111111 111 11111 11111 TTTAAAACATTGACTTTTGT AAAAAGAA TCATGTTTT AGT CAAAA ATAT CTGTT T **ACTAAGAAAA** C- TA--- TTTT AC С

TCTTTC CT TC

CT TTC TATTTT AAAATG GAGG AG CT CCA

CT T TCTTT- - AATTATA

GAA

ACAAAAATATTAAACCTCTT

TCTGATGGAGTCGTAAAAA

GAM341 AGAGATAAAACTTTTTTACG 327 TGAGACCATC 676 --AC ----- A A AAGA A T GAAGGAGACT CTCC TC GA ACTCCATCAGAAAGAGGTTT AGAGATA AAACTTTTTT GA **GGTTT ATA T** AATATTTTTGTGAGACCATC CCAT

GAAGGAGACTCCATCAGAAA TTTTTAT TTTGGAGAAA CT GAGG AG CT CCAGA

TGT T

Α

GAGGTTTAATATTTTT AA GA ACCTCA A - A--- G T

GAM342 ATAAAAATATTTTTGTAAAA 328 AATATTTTTG 677 AAAA A-- GA ATAAAAATATTTTTGT CTTTTTTT TGA C CTTTTTTTATGAGACCATCA TAAAACTTTT AAGAGAGAAAGAGAATAAAA TTTA ATATTTTTGT TGTTTTTATAAAAATA GAAAGAGA ACT / GAA AC AGA-

GAM343 ATAAAAATATTTTTGTAAAA 329 AATATTTTTG 678 AAAA A-- GA CTTTTTTTATGAGACCATCA TAAAACTTTT ATAAAAATATTTTTGT CTTTTTTT TGA C AAGAGAAAAGAGAATAAAA TTTA ATATTTTTGT TGTTTTTATAAAAATA GAAAGAGA ACT / AGA-GAA AC

GAM344 ATGGATTTTACTAGATCATT 330 TTATACGATC 679 - TTT - ATTT- ACC TATATACCAAAAAATATTAT TACGTTTTAT ATG GAT AC TAGATC ATAT A ACGATCTACGTTTTATTATA TATA | | | | | TAT TTA TG ATCTAG TATA A Т A TTT C CATAT AAA

GAM345 CTTTTTTACGACTCCATCAG 331 CATCAGAAAG 680 A CTCCA G G T A G GACCA -AAAGA AAAGAGGTTTAATATTTTTG AGGTTTAATA T CGA TCA AAAGA GTT AAT TTTTT TGA TCG AAGAGAG G TGAGACCATCGAAGAGAGAA TTTT AGAGATAAAACTTTTTTACG A GCT AGT TTTTT TAA TTG AGAAA ACT AGC TTTTTTC Α ACTCCATCAGAAAGAGGTTT - ACCAG G A T G G ACCTC A **AAAAT AATATTTTTGTGAGACCATC** GAAGAGAG GAM346 CTTTTTTACGACTCCATCAG 332 CATCAGAAAG 681 A CTCCA G G T A G GACCA -AAAGA

AAAGAGGTTTAATATTTTTG AGGTTTAATA T CGA TCA AAAGA GTT AAT TTTTT TGA TCG AAGAGAG G

TGAGACCATCGAAGAGAGAA TTTT $\parallel \parallel \parallel$

AGAGATAAAACTTTTTTACG AGT TTTTT TAA TTG AGAAA ACT A GCT AGC TTTTTTC

ACTCCATCAGAAAGAGGTTT - ACCAG G A T G G ACCTC A AAAAT AATATTTTTGTGAGACCATC

```
GAAGAGAG
                                                A CTCCA G G T A G GACCA -
GAM347 CTTTTTTACGACTCCATCAG 333 CATCAGAAAG 682
 AAAGA
   AAAGAGGTTTAATATTTTTG
                           AGGTTTAATA
                                          T CGA
                                                TCA AAAGA GTT AAT TTTTT TGA TCG
AAGAGAG
         G
   TGAGACCATCGAAGAGAA
                             TTTT
                                       AGAGATAAAACTTTTTTACG
                                    A GCT
                                           AGT TTTTT TAA TTG AGAAA ACT
                                                                     AGC TTTTTTC
 Α
   ACTCCATCAGAAAGAGGTTT
                                     - ACCAG G A T G G ACCTC A
                                                                      AAAAT
   AATATTTTTGTGAGACCATC
   GAAGAGAG
GAM348 CTTTTTTACGACTCCATCAG 334 CATCAGAAAG 683
                                                 A CTCCA G G T A
                                                                     G GACCA -
 AAAGA
   AAAGAGGTTTAATATTTTTG
                           AGGTTTAATA
                                          T CGA
                                                TCA AAAGA GTT AAT TTTTT TGA TCG
AAGAGAG G
   TGAGACCATCGAAGAGAGAA
                             TTTT
                                       \parallel \parallel \parallel
                                           AGAGATAAAACTTTTTTACG
                                    A GCT
                                           AGT TTTTT TAA TTG AGAAA ACT
                                                                     AGC TTTTTTC
 Α
   ACTCCATCAGAAAGAGGTTT
                                     - ACCAG G A T G G ACCTC A
                                                                      AAAAT
   AATATTTTTGTGAGACCATC
   GAAGAGAG
GAM349 CTTTTTTACGACTCCATCAG 335 CATCAGAAAG 684
                                                A CTCCA G G T A
                                                                     G GACCA -
 AAAGA
                                                TCA AAAGA GTT AAT TTTTT TGA
   AAAGAGGTTTAATATTTTTG
                            AGGTTTAATA
                                          T CGA
                                                                          TCG
AAGAGAG G
   TGAGACCATCGAAGAGAGAA
                             TTTT
                                       1 111
                                           111 11111 111 111 11111 111
                                                        111 1111111
   AGAGATAAAACTTTTTTACG
                                           AGT TTTTT TAA TTG AGAAA ACT
                                    A GCT
                                                                     AGC TTTTTTC
 Α
   ACTCCATCAGAAAGAGGTTT
                                     - ACCAG G A T G G ACCTC A
                                                                      AAAAT
   AATATTTTTGTGAGACCATC
   GAAGAGAG
GAM350 CTTTTTTACGACTCCATCAG 336 CATCAGAAAG 685
                                                 A CTCCA G G T A
                                                                     G GACCA -
 AAAGA
   AAAGAGGTTTAATATTTTTG
                           AGGTTTAATA
                                          T CGA
                                                TCA AAAGA GTT AAT TTTTT TGA TCG
AAGAGAG
        G
   TGAGACCATCGAAGAGAGAA
                             TTTT
                                       | | | | |
                                           AGAGATAAAACTTTTTTACG
                                    A GCT
                                           AGT TTTTT TAA TTG AGAAA ACT
                                                                     AGC TTTTTTC
 Α
   ACTCCATCAGAAAGAGGTTT
                                     - ACCAG G
                                                A T G G ACCTC A
                                                                      AAAAT
   AATATTTTTGTGAGACCATC
   GAAGAGAG
GAM351 CTTTTTTACGACTCCATCAG 337 CATCAGAAAG 686
                                                 A CTCCA G G T A
                                                                     G GACCA -
 AAAGA
   AAAGAGGTTTAATATTTTTG
                           AGGTTTAATA
                                          T CGA
                                                TCA AAAGA GTT AAT TTTTT TGA TCG
AAGAGAG
         G
   TGAGACCATCGAAGAGAGAA
                             TTTT
                                       \parallel \parallel \parallel
                                           AGAGATAAAACTTTTTTACG
                                           AGT TTTTT TAA TTG AGAAA ACT
                                    A GCT
                                                                     AGC TTTTTTC
 Α
   ACTCCATCAGAAAGAGGTTT
                                     - ACCAG G A T G G ACCTC A
                                                                      AAAAT
```

AATATTTTTGTGAGACCATC

```
GAAGAGAG
```

GAM352 CTTTTTTACGACTCCATCAG 338 CATCAGAAAG 687 A CTCCA G G T A G GACCA -AAAG

AAAGAGGTTTAATATTTTTG AGGTTTAATA TT CGA TCA AAAGA GTT AAT TTTTT TGA TCG

AAGAGAG A

TGAGACCATCGAAGAGAA TTTT

AGATAAAACTTTTTTACGAC AA GCT AGT TTTTT TAA TTG AGAAA ACT

TTTTTTC T

TCCATCAGAAAGAGGTTTAA - ACCAG G A T G G ACCTC A AAAA

TATTTTTGTGAGACCATCGA

AGAGAG

CAA GAM353 GTGTGCCTGAATCGTTCGAT 339 TGAATAGAGT 688 С TTCGAT C C TAACCCTACTCATCCAATTT TATCGATTCA GTGTG CTGAATCG TAAC CTA TCATC T

CAGATGAATAGAGTTATCGA GACA

TTCAGACACAC CACAC GACTTAGC ATTG GAT AGTAG T

> T---- A A ACT Α

GAM354 TCAGAAAGAGGTTTAATATT 340 AGAGGTTTAA 689 AAA GTTT--GAGACCA- GA TC A TTTGTGAGACCATCGAAGAG **AATATTTTTGT** TATTTTTGTG TCAG GAG AGAAAGAGAATAAAAATATT AGAC Ш

> AGTT CTC AC- AGTATT AGAGAAAG AG

TTATAAAAATA

AG /

GAM355 TGAGACCATCAAAGAGAGAA 341 AGAGAGAAAG 690 ACCA AAG AGA-**AAAA**

A-- GA

TCA AGAGAAAG ATAAAAATATTTTTGT AGAATAAAAA AGAGAATAAAAATATTTTTG

CTTTTTTT TGA C

TAAAACTTTTTTTTTTTATGAGAC TATT

CATCAAAGAGAGAAAGAGAA AGT TTTTTTC TGTTTTTATAAAAATA GAAAGAGA

ACT /

CCAG A--TAAAAATATTTTTGTAAAAC AAAA AGA-GAA AC

TTTTTTTATGAGACCATCA

TTATGACTCCATTGA

GAM356 TTTTATGAGACCATCAAAGA 342 GAAGAGAGAA 691 ACCA AAG AGA-AAAA---

- A

TCA AGAGAAAG ATAAAAATATTTTTGT GAGAAAGAGAATAAAAATAT AGAGAATAAA

CTTTTTTTG TG G

TTTTGTAAAACTTTTTTTGT AATA 111 1111111 111111111111111

GAGACCATCGAAGAGAGAAA AGT TTTTTTC TGTTTTTATAAAAATA

GAGAGAAGC AC A

GAGAATAAAAATATTTTTGT CCAG A--AAAA AGAGAAA T C

AAAACTTTTTTTATGAGACC

ATCAAAGAGAG

GAM357 TTTTTCTTAGTACAAAAGTC 343 TCAATGTTTT 692 G- AT---G A-AAAA

AATGTTTTAAAATATATGGA AAAATATATG TTTTTCTT GTACAAAA TCA GTTTT

TATATGGACAA A

CAAGAATTTGTCTGTATAAA **GACA**

AACTTGTGTGAAATTTTGTA AAAAAGAA CATGTTTT AGT CAAAA ATATGTCTGTT A

ATGATTGGAGAAGTAGGAAA

CAGGAACACGACAACGATTA

CT

GAM358 TCACCTTATCAAAGTCGTTT 344 TTGGTTGTGG 693 CCTT A TT CACAT TATA T-TT TCA ATCA AGTCGT ATAT TGTA ATATCACATTGTATATAGTT ATCTTCTACA GTTTATAACC TAACT C TATAACCTTAACTTTCGAGG ATAT 10 100 1000 100 100 1000100 1000 TTATTGGTTGTGGATCTTCT AGT TAGT TCAGTA TATA ACAT TAGGTGTTGG ATTGG / **ACAATATCTATGACTCTGAT** TT AG TCTT C TC ---- CTTC **TTCTTGA** GAM359 TCGGCCATACGTTTACTTTT 345 TATCATAAAG 694 AC T C- - GT **TGCGTATACATGTCCTGGTG** GGTATGCTCA TCGGCCAT GT TACTTTTTG GTATA CAT C ATATATCATAAAGGGTATGC TGGC 1111111 11 111111111 11111 111 **TCATGGCCGA** AGCCGGTA CG ATGGGAAAT TATAT GTG C CT T AC A GT A---GAM360 TCGATGATACATGTATTAAA 346 TGATACATGT 695 TGTA T TCC **ATACTTTCCGAATAAGTCTT** ATTAAAATAC TCG TGATACA TTAAAA ACTT G TTAAATATTGTATTAATTAT TTTC 111 1111111 111111 1111 AGT ATTATGT AATTTT TGAA / GA ATTA TATA C TAA GAM361 AAAATCGATTCCGTCCAAGA 347 TCGATTCCGT 696 CCAAG AAAAACA С CCAAGATGAT AAAAT GATTCCGT ATGAT **TGATAAAAACATTTACCGGC** Т ATCATAAACACGGAGTTTAT AAAA TTTTA TTGAGGCA TACTA TTT Т Т CAAA- CGGCCAT GAM362 CATGGAGATACTTTATTACT 348 TAATGTCCTG 697 ----- T **TAAATA** TTTCATTTGT CCATTAAATAATTTATCATG CATGGAGAT AC TTATTACTCCAT GAGTGATAATGTCCTGTTTC TTCC 11 111111111111 **ATTTGTTTCCATG** GTACCTTTG TG AATAGTGAGGTA / TTTACTTTGTCC T CTATTT GAM363 AGTATGTTGTACGGAAAGAA 349 TGATTGGAGA 698 -- A GAAAGAACCA-- AAATATTA TG--- AAGA CCATTACAAATATTATCCAT AGTAGGAAAC AGTA TGTTGT CG TTAC **TCCA** ATAGA A GATAGAAAGAAAATATCTAT **AGGA** Ш 1111 11111

TCAT GCAACA GC

GATG

- ACAAGGACAAAG AAG---- TAGTA

AGGT

TATCT /

```
GENE TARGET UTR SEQUENCE
                           SEQID BINDING-SITE
GAM15 CAPN2 3' AAAACTTTATGAACTTCACCA 855 A
                                        _ AAA
                   TG TGGAGT CGTAA AGTTTT
                   AC ACTTCA GTATT TCAAAA
                    C A
GAM15 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                        CG A
                   TGATGGAGT TA AAAAGTTTT
        Α
                   ACTACCTCA AT TTTTTAAAA
                      AA C
                                       _ C AAAA
GAM15 SELE
           3' AAAACTCTCCTACACTTCCATT 747
        Α
                   TGATGGA GT GTA AGTTTT
                   ATTACCT CA CAT TCAAAA
                      T CCTC
                                      C AAAA
GAM15 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                   TGATGGAGT GTAA GTTTT
                   ACTACCTTA CGTT CAAAA
                      _ C___
GAM15 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                          AAA
                   TG TGGAGTCGTA AAGT
                   AC GCCTCAGCAT TTCG
                        С
GAM15 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                           ΑА
                   TG TGGAGTC GT AA AAGTT
                   AC ACCTCAG CA TT TTTAA
                    С
                       TCC
GAM15 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                          AAA
                   TG TGGAGTCGTA AAGT
                   AC GCCTCAGCAT TTCG
                    С
                        C__
GAM16 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                     Α
                                          AAA
                   TG TGGAGT CGTAA AGTTTT
                   AC ACTTCA GTATT TCAAAA
                    С
                      Α
GAM16 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                        CG A
        Α
                   TGATGGAGT TA AAAAGTTTT
                   ACTACCTCA AT TTTTTAAAA
                      AA C
                                       _ C AAAA
GAM16 SELE 3' AAAACTCTCCTACACTTCCATT 747
                   TGATGGA GT GTA AGTTTT
        Α
```

```
ATTACCT CA CAT TCAAAA
                        T _ CCTC
GAM16 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                          C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C__
GAM16 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                         Α
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           С
GAM16 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                               _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                      С
                         TCC
GAM16 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           C__
            3' AAAACTTTATGAACTTCACCA 855
GAM17 CAPN2
                                         Α
                                               AAA
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                         Α
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
GAM17 DAAM2
                     TGATGGAGT TA AAAAGTTTT
         Α
                     ACTACCTCA AT TTTTTAAAA
                        AA C
                                          _ C AAAA
GAM17 SELE
            3' AAAACTCTCCTACACTTCCATT 747
         Α
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                        T _ CCTC
GAM17 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C_
GAM17 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                         Α
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           C__
                                               _{-} A A
GAM17 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                     TG TGGAGTC GT AA AAGTT
```

11 1111111 11 11 11111

```
AC ACCTCAG CA TT TTTAA
                         TCC
                      C
GAM17 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      C
                           С
GAM18 CAPN2
            3' AAAACTTTATGAACTTCACCA 855
                                               AAA
                                         Α
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                         Α
GAM18 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
         Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
GAM18 SELE
            3' AAAACTCTCCTACACTTCCATT 747
                                           _ C AAAA
                     TGATGGA GT GTA AGTTTT
         Α
                     ATTACCT CA CAT TCAAAA
                        T _ CCTC
GAM18 KIAA0475 3' AAAACCTTGCATTCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C_
GAM18 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                                         Α
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           С
                                               _ A A
GAM18 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                         TCC
                      С
GAM18 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           C__
GAM19 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                               AAA
                                        Α
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                      С
                         Α
GAM19 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
                     TGATGGAGT TA AAAAGTTTT
         Α
```

```
AA C
                                          _ C AAAA
GAM19 SELE 3' AAAACTCTCCTACACTTCCATT 747
        Α
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM19 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        С
GAM19 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          С
GAM19 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                              _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                     C T C C
GAM19 LOC257615 5' GCTTCTACGACTCCGCCA 3749 A
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          С
GAM20 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                             AAA
                                       Α
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     С
                         Α
GAM20 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                           CG A
        Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
            3' AAAACTCTCCTACACTTCCATT 747
                                          _{\rm C} C AAAA
GAM20 SELE
                     TGATGGA GT GTA AGTTTT
        Α
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM20 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C_
GAM20 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
```

TG TGGAGTCGTA AAGT

ACTACCTCA AT TTTTTAAAA

```
AC GCCTCAGCAT TTCG
                      С
                           C__
GAM20 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                                _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                          TCC
GAM20 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                               AAA
                                          Α
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           С
GAM21 CAPN2
             3' AAAACTTTATGAACTTCACCA 855
                                                AAA
                                         Α
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                      С
                          Α
GAM21 DAAM2
             3' AAAATTTTCTAAAACTCCATC 3559
                                             CG A
                      TGATGGAGT TA AAAAGTTTT
         Α
                     ACTACCTCA AT TTTTTAAAA
                         AA C
                                            _ C AAAA
GAM21 SELE
            3' AAAACTCTCCTACACTTCCATT 747
                      TGATGGA GT GTA AGTTTT
                      ATTACCT CA CAT TCAAAA
                        T _ CCTC
GAM21 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                            C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                          _ C_
GAM21 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                               AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           C__
GAM21 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                                _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                          TCC
GAM21 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                          Α
                                                AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           \mathsf{C}_{-}
GAM22 CAPN2
             3' AAAACTTTATGAACTTCACCA 855
                                          Α
                                                AAA
                     TG TGGAGT CGTAA AGTTTT
```

```
AC ACTTCA GTATT TCAAAA
                     С
                         Α
GAM22 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                           CG A
        Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
            3' AAAACTCTCCTACACTTCCATT 747
                                          _ C AAAA
GAM22 SELE
                     TGATGGA GT GTA AGTTTT
        Α
                     ATTACCT CA CAT TCAAAA
                       T CCTC
GAM22 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        С
GAM22 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          C__
GAM22 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                         Α
                                              _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                         TCC
GAM22 LOC257615 5' GCTTCTACGACTCCGCCA 3749 A
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          С
                                           _ AAA
GAM23 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     C A
            3' AAAATTTTTCTAAAACTCCATC 3559
GAM23 DAAM2
                                           CG A
                     TGATGGAGT TA AAAAGTTTT
        Α
                     ACTACCTCA AT TTTTTAAAA
                        AA C
                                          _ C AAAA
GAM23 SELE 3' AAAACTCTCCTACACTTCCATT 747
        Α
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM23 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
```

```
ACTACCTTA CGTT CAAAA
                        _ C___
GAM23 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                          С
GAM23 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                          Α
                                              _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                     С
                         TCC
GAM23 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          С
GAM24 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                           AAA
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     C A
GAM24 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
                                          _ C AAAA
GAM24 SELE
            3' AAAACTCTCCTACACTTCCATT 747
                     TGATGGA GT GTA AGTTTT
        Α
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM24 KIAA0475 3' AAAACCTTGCATTCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C__
GAM24 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          C__
GAM24 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                              _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                     С
                         TCC
GAM24 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                              AAA
                     TG TGGAGTCGTA AAGT
```

```
AC GCCTCAGCAT TTCG
                     С
                          C__
GAM25 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                           _ AAA
                                       Α
                    TG TGGAGT CGTAA AGTTTT
                    AC ACTTCA GTATT TCAAAA
                     C A
GAM25 DAAM2
            3' AAAATTTTTCTAAAACTCCATC 3559
                                           CG A
                     TGATGGAGT TA AAAAGTTTT
        Α
                     ACTACCTCA AT TTTTTAAAA
                        AA C
                                          _ C AAAA
GAM25 SELE
            3' AAAACTCTCCTACACTTCCATT 747
        Α
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T CCTC
                                          C AAAA
GAM25 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                    TGATGGAGT GTAA GTTTT
                    ACTACCTTA CGTT CAAAA
                        _ C___
GAM25 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                             AAA
                    TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                          С
GAM25 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                              ΑА
                    TG TGGAGTC GT AA AAGTT
                    AC ACCTCAG CA TT TTTAA
                     С
                         TCC
GAM25 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                             AAA
                    TG TGGAGTCGTA AAGT
                    AC GCCTCAGCAT TTCG
                     С
                          C__
            5' AGAGAAAGTCTGACTTGCCCCA 783
GAM26 ITGB7
                                         AAAA TTAT
        C
                     GT AAGTT CTTTCTCT
                     CA TTCAG GAAAGAGA
                     CCCCG TCT_
                                          A A TTA
GAM26 RPP30 3' AGAGAAAGACAACTGTTCTGCG 1297
                     CGTA AA AGTT TCTTTCTCT
                     GCGT TT TCAA AGAAAGAGA
                      CGC_
GAM26 FLJ13263 3' AGAGAAAGATTTTAGCTTTT 2139
                                          TT_{-}
                    AAAAGTT ATCTTTCTCT
```

```
TTTTCGA TAGAAAGAGA
                        TTT
GAM26 FLJ23074 5' AGAGAAAGACAAGGGTTT 2133
                                         G A
                     AAA TTTT TCTTTCTCT
                     TTT GGAA AGAAAGAGA
                       G C
GAM26 GTF2A2 3' AGAAAAAATATGACTTTTTTAC 1119
                                              T C_
                     GTAAAAAGTT TAT TTTCT
                     CATTTTTCAG ATA AAAGA
                          T AA
GAM26 IMP-2 3' AGAGAAAGCAGGCTTTTCTA 1308 A
                                             TAT
                     TA AAAAGTTT CTTTCTCT
                     AT TTTTCGGA GAAAGAGA
                      С
                          С
GAM26 KIAA0212 3' AGAAAGGTAAATCTTTTAC 1518
                                            ΑТ
                     GTAAAAA G TTTATCTTTCT
                     CATTTTT C AAATGGAAAGA
                        _ T
GAM26 OSBPL2 5' AGAGAAAGTTTGTAAAATTCCT 1566
                                            AAA
                       GTAA AGTTTTAT CTTTCTCT
         TAC
                     CATT TTAAAATG GAAAGAGA
                       CC
                             TTT
GAM26 OSBPL2 5' AGAGAAAGTTTGTAAAATTCCT 2482
                                            AAA
         TAC
                       GTAA AGTTTTAT CTTTCTCT
                     CATT TTAAAATG GAAAGAGA
                       CC_{-}
                             \mathsf{T}\mathsf{T}\mathsf{T}
GAM26 RBM9
             3' AGAAAGAATACTTTTTAT 1489
                                           TTTA
                     GTAAAAAGT TCTTTCT
                     TATTTTTCA AGAAAGA
                         TA__
GAM26 LOC254826 3' AGAGAAAGTCTTGCTTTTT 3732
                                            TTTAT
                     AAAAAGT CTTTCTCT
                     TTTTTCG GAAAGAGA
                        TTCT
GAM27 CAPN2
             3' AAAACTTTATGAACTTCACCA 855
                                                AAA
                                         Α
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                      С
                          Α
GAM27 DAAM2
             3' AAAATTTTCTAAAACTCCATC 3559
                                             CG A
```

TGATGGAGT TA AAAAGTTTT

Α

```
AA C
                                          _ C AAAA
GAM27 SELE 3' AAAACTCTCCTACACTTCCATT 747
        Α
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM27 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                    TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        С
GAM27 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                    TG TGGAGTCGTA AAGT
                    AC GCCTCAGCAT TTCG
                     С
                          С
GAM27 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                              _ A A
                    TG TGGAGTC GT AA AAGTT
                    AC ACCTCAG CA TT TTTAA
                     C T C C
GAM27 LOC257615 5' GCTTCTACGACTCCGCCA 3749 A
                                              AAA
                    TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          С
GAM28 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                             AAA
                                      Α
                    TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     С
                         Α
GAM28 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                           CG A
        Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
            3' AAAACTCTCCTACACTTCCATT 747
                                          _{\rm C} C AAAA
GAM28 SELE
                     TGATGGA GT GTA AGTTTT
        Α
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM28 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                    TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C_
GAM28 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
```

TG TGGAGTCGTA AAGT

ACTACCTCA AT TTTTTAAAA

```
AC GCCTCAGCAT TTCG
                       С
                            C__
GAM28 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                                 _ A A
                      TG TGGAGTC GT AA AAGTT
                      AC ACCTCAG CA TT TTTAA
                          TCC
GAM28 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                                AAA
                                           Α
                      TG TGGAGTCGTA AAGT
                      AC GCCTCAGCAT TTCG
                      С
                            С
GAM29 CAPN2
             3' AAAACTTTATGAACTTCACCA 855
                                                AAA
                                          Α
                      TG TGGAGT CGTAA AGTTTT
                      AC ACTTCA GTATT TCAAAA
                       С
                          Α
GAM29 DAAM2
             3' AAAATTTTCTAAAACTCCATC 3559
                                              CG A
                      TGATGGAGT TA AAAAGTTTT
         Α
                      ACTACCTCA AT TTTTTAAAA
                         AA C
                                            _ C AAAA
GAM29 SELE
            3' AAAACTCTCCTACACTTCCATT 747
                      TGATGGA GT GTA AGTTTT
                      ATTACCT CA CAT TCAAAA
                         T _ CCTC
GAM29 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                             C AAAA
                      TGATGGAGT GTAA GTTTT
                      ACTACCTTA CGTT CAAAA
                          _ C_
GAM29 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                                AAA
                      TG TGGAGTCGTA AAGT
                      AC GCCTCAGCAT TTCG
                       С
                            C__
GAM29 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                                 _ A A
                      TG TGGAGTC GT AA AAGTT
                      AC ACCTCAG CA TT TTTAA
                           TCC
GAM29 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                           Α
                                                AAA
                      TG TGGAGTCGTA AAGT
                      AC GCCTCAGCAT TTCG
                       С
                            \mathsf{C}_{-}
                                           \mathsf{T}_{-}
GAM30 FGF2
            3' ATATTTTTGTGGCTGCTTTTT 884
                      AAAAAGT TTACAAAAATAT
```

```
TTTTTCG GGTGTTTTTATA
                        TC
GAM30 MPHOSPH1 3' ATATTTTTATAAGGCTTTTTT 1670
                                               С
                     AAAAAAGTTTTA AAAAATAT
                     TTTTTTCGGAAT TTTTTATA
GAM30 FLJ11274 3' ATATCTTTGTAGTAGCTTTTTT 1820
                                                 Α
         TA
                      TAAAAAAGTT TTACAAA ATAT
                     ATTTTTTCGA GATGTTT TATA
                         Т
     FLJ31101 3' ATATTTTTGTAAAATGTATTTG 1771
                                           AAAA
         Т
                      ATAAA GTTTTACAAAAATAT
                     TGTTT TAAAATGTTTTTATA
                       ATG
GAM30 GPT2
            3' ATATTTTGTAACAATTGCTTT 2417
         TTT
                       AAAAAAGT TTACAAAAATAT
                     TTTTTTCG AATGTTTTTATA
                        TTAAC
GAM30 RMP
            3' TTTTGTAAAACTTTTTTTC 2430 T
                     A AAAAAAGTTTTACAAAA
                     C TTTTTTTCAAAATGTTTT
            3' TTTTGTAAAACTTTTTTTC 1059 T
GAM30 RMP
                     A AAAAAAGTTTTACAAAA
                     C TTTTTTCAAAATGTTTT
                     Т
GAM30 SOX6
            3' ATATTTTGTCTTACTTTTTT 2328
                                           TTT
                     AAAAAAGT ACAAAAATAT
                     TTTTTTCA TGTTTTTATA
                         TTC
GAM30 LOC136288 3' ATATTTCTGAGGCTTTTTTTGT 3018
                                                CAA
                     ATAAAAAAGTTTTA AAATAT
                     TGTTTTTTCGGAGT TTTATA
                           C^-
GAM31 AICDA
            3' AGAAAGAGAACAATATTT 1922
                                          TTTA
                     AAATATT TTCTCTTTCT
                     TTTATAA AAGAGAAAGA
                        \mathsf{C}_{-}
GAM31 AS3
           3' AGAAAGATTTAAAGTATTTTA 1652
                                           TATTC
```

TAAAATATTTT TCTTTCT

```
TTT
GAM31 EPM2A 3' AGAAAGAGAAGTGTTTT
                                 1234
                                        TTTTA
                    AAAATAT TTCTCTTTCT
                     TTTTGTG AAGAGAAAGA
GAM31 HRH1
            3' AGAAAGAGAAATGAAATATTTT 780
                                           TA
                     AAAATATTTT TTCTCTTTCT
                     TTTTATAAAG AAGAGAAAGA
                        TΑ
GAM31 MAPK14 3' GAGAAAGGGCAAATTATTTTA 818
                                           T TATT
                    TAAAATA TTT CTCTTTCTC
                    ATTTTAT AAA GGGAAAGAG
                       T C___
GAM31 MAPK14 3' GAGAAAGGGCAAATTATTTA 2465
                                           T TATT
                    TAAAATA TTT CTCTTTCTC
                    ATTTTAT AAA GGGAAAGAG
                       T C
GAM31 MAPK14 3' GAGAAAGGGCAAATTATTTA 2466
                                           T TATT
                    TAAAATA TTT CTCTTTCTC
                     ATTTTAT AAA GGGAAAGAG
                       T C
GAM31 NOTCH2 3' GAGAATTAAAATATTTTA 2058
                                           Т
                    TAAAATATTTT ATTCTC
                     ATTTTATAAAA TAAGAG
                         Т
GAM31 SIM1
           3' GAGAAAGAGAGAGATA
                                1181
                                       TAT
                    TATTTT TCTCTTTCTC
                     ATAGAG AGAGAAAGAG
GAM31 C11orf25 3' AAAGAGAAAAATATTTTA 2193
                                          TAT
                     TAAAATATTTT TCTCTTT
                     ATTTTATAAAA AGAGAAA
GAM31 DKFZP564D116 3' GAAAAGCAATAAAAATATTTTA 2938
                                                  _ C
                    TAAAATATTTTTATT CT TTTC
                     ATTTTATAAAAATAA GA AAAG
                           C _
GAM31 DSCR6
            3' GAGAAAGAGAAGGTCTATGTCA 1866 A TTTTA
```

A ATAT TTCTCTTTCTC

ATTTTATGAAA AGAAAGA

```
A TGTA AAGAGAAAGAG
                      C TCTGG
GAM31 FLJ10006 3' GAGAAAGAAGATATTTTA 3152
                                             Α
                      TAAAATATTTTT TTCTC
                      ATTTTATAGAAG AAGAG
GAM31 HTPAP
             3' GAGAATAAAAAGATTTTA 2255
                                          Α
                      TAAAAT TTTTTATTCTC
                      ATTTTA AAAAATAAGAG
                        G
GAM31
      KIAA0979 3' AGAAAGATTTAAAGTATTTTA 1601
                                              TATTC
                      TAAAATATTTT
                                  TCTTTCT
                      ATTTTATGAAA
                                  AGAAAGA
                          TTT
GAM31 KIAA1634 3' GAGAATAAAACTATTTTA
                                  2657
                                           Т
                      TAAAATA TTTTATTCTC
                      ATTTTAT AAAATAAGAG
                         C
GAM31 PTD012 3' GAGATTGGGAACAAAATAT 1465
                                               TT
                      ATATTTTT TTCTC TCTC
                      1111111 1111 1111
                      TATAAAAA AAGGG AGAG
                           TT
      SAMHD1 3' AGAAAGAGAAAGAAATAT 2593
GAM31
                                            Α
                      ATATTTTT TTCTCTTTCT
                      TATAAAGA AAGAGAAAGA
      LOC196758 3' GAGAAAGAGCAGGTGAAATATT 3410
GAM31
                                                 TATT
         TT
                       AAAATATTTT CTCTTTCTC
                      TTTTATAAAG
                                 GAGAAAGAG
                          TGGAC
GAM31 LOC219790 3' GAGAATAAAAATAATTTA 3520
                                           Α
                      TAAA TATTTTTATTCTC
                      ATTT ATAAAAATAAGAG
GAM32 CAPN2
             3' AAAACTTTATGAACTTCACCA 855
                                          Α
                                                AAA
                      TG TGGAGT CGTAA AGTTTT
                      AC ACTTCA GTATT TCAAAA
                       С
                          Α
GAM32 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                              CG A
                      TGATGGAGT TA AAAAGTTTT
         Α
```

```
ACTACCTCA AT TTTTTAAAA
                        AA C
                                          _ C AAAA
GAM32 SELE 3' AAAACTCTCCTACACTTCCATT 747
        Α
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM32 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        С
GAM32 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          С
GAM32 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                              _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                     C T C C
GAM32 LOC257615 5' GCTTCTACGACTCCGCCA 3749 A
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          С
GAM33 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                             AAA
                                       Α
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     С
                         Α
GAM33 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                           CG A
        Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
            3' AAAACTCTCCTACACTTCCATT 747
                                          _{\rm C} C AAAA
GAM33 SELE
                     TGATGGA GT GTA AGTTTT
        Α
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM33 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C_
GAM33 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
```

TG TGGAGTCGTA AAGT

```
AC GCCTCAGCAT TTCG
                     С
                          C__
GAM33 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                              _ A A
                    TG TGGAGTC GT AA AAGTT
                    AC ACCTCAG CA TT TTTAA
                         TCC
GAM33 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                        Α
                                             AAA
                    TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          С
GAM34 ADCY6 3' TTGTACAATATTTTGTACAAAG 1617
                                              TTCAC
        Α
                     TCTTTG TACAAAAT ACAA
                     AGAAAC ATGTTTTA TGTT
                           TAACA
GAM34 ADCY6 3' TTGTACAATATTTTGTACAAAG 1933
                                          G
                                              TTCAC
                     TCTTTG TACAAAAT ACAA
        Α
                     AGAAAC ATGTTTTA TGTT
                           TAACA
GAM34 APBB2 5' TGAGCTTTGTACCAAAGA 2946
                                           AT
                    TCTTTGGTACAAA TTCA
                     AGAAACCATGTTT GAGT
GAM34 ATP8B2 3' TGATTTTTATACCAAAGA 2716
                                         C TT
                    TCTTTGGTA AAAA TCA
                     AGAAACCAT TTTT AGT
                        A T_
GAM34 CEACAM1 3' TGTGTGAACTAGCAAAGA 848
                                         G CAAAAT
                    TCTTTG TA TTCACACA
                     AGAAAC AT
                               AAGTGTGT
                       GC
GAM34 CHST1
                                            __ T
            3' TGTGATATTTCTTTGTGCCAAA 1046
                     TTTGGTACAAA AT TCACA
                     AAACCGTGTTT TA AGTGT
                         CTT T
GAM34 FBXL7
            3' TGCGTGTTTTCCACCAAAGA 1425
                                          AC TTT A
                    TCTTTGGT AAAA CACCA
                     AGAAACCA TTTT GTG GT
                        CC ___ C
GAM34 HOXC9
            3' TGCGTGCAGATTTTGTAC 2592
                                           _ A
                    GTACAAAATTT CAC CA
```

```
CATGTTTTAGA GTG GT
                         CC
GAM34 IGF1 3' TGTGGCATTTGTACCAAA 763
                                         ATT
                     TTTGGTACAAA TCACA
                     AAACCATGTTT GGTGT
                         AC
GAM34 ITGAL 3' TGTGAAATTCTGTCCAAA 907
                                       T A
                     TTTGG ACA AATTTCACA
                     AAACC TGT TTAAAGTGT
                      С
GAM34 LBR
           3' TGTACTGGATTGCACCAAGGA 2522
                                          A AAT C
                     TCTTTGGT CAA TTCA ACA
                     AGGAACCA GTT AGGT TGT
                        C CA
GAM34 MIP
           3' TGTGTGAAATCTTTCAAG 1399
                                       TACAAA
                     TTTGG ATTTCACACA
                     GAACT
                           TAAAGTGTGT
                       TTC
GAM34 RLN2
            3' TGTTGGTTGTACCAAA
                                         AATT C
                                1175
                     TTTGGTACAA TCA ACA
                     AAACCATGTT GGT TGT
GAM34 SART2 3' TGATTTTCATACCAAAGA 1444
                                          CA TT
                     TCTTTGGTA AAA TCA
                     AGAAACCAT TTT AGT
                        AC T_
GAM34 TPK1
            3' AAATTTTGCTACCAAAGA 1987
                     TCTTTGGTA CAAAATTT
                     AGAAACCAT GTTTTAAA
                        С
GAM34 TRIP12 3' TGTGTGAAATTTAAAAAAGG 1094
                                         GGTACA
                     TCTTT
                           AAATTTCACACA
                         |||||
                     GGAAA TTTAAAGTGTGT
                       AAA
GAM34 BRD3
            3' GTGTGAGATTCGTACCGAAGA 1398
                                            AA
                     TCTTTGGTAC AATTTCACAC
                     AGAAGCCATG TTAGAGTGTG
                         \mathsf{C}_{-}
GAM34 FLJ13397 3' GTGTGAAATTTACTAGCAAA 2116
                                         G CA
```

TTTG TA AAATTTCACAC

```
AAAC AT TTTAAAGTGTG
                      G CA
GAM34 FLJ22202 3' TGTATCATTTTGTACCAAA 2103
                                            TTC
                    TTTGGTACAAAAT ACA
                    AAACCATGTTTTA TGT
                          CTA
                                          ACAAAATT _
GAM34 GROS1 3' TGTGTAGACAACCAAAGA 1986
                    TCTTTGGT
                               TC ACACA
                     AGAAACCA
                               AG TGTGT
                        AC A
GAM34 KIAA0981 3' TGTGTAAAACTGCCAAGGA 2598
                                           CAAAA C
                    TCTTTGGTA TTT ACACA
                    AGGAACCGT AAA TGTGT
                        C A
GAM34 KIAA1243 3' TGTGACATGACCAAAGA
                                 2978
                                         A AAATT
                    TCTTTGGT CA TCACA
                    AGAAACCA GT AGTGT
                        _ AC___
GAM34 KIAA1462 3' TTGTGTGAGAGGAACCCAAAGA 3524
                                            TACAAAA
                    TCTTTGG
                              TTTCACACAA
                          AGAAACC
                             AGAGTGTGTT
                       CAAGG
     MGC1136 3' TTGTGTGAAACCCCTAGCATAG 2041
                                         T G CAAAA
GAM34
        Α
                     TCT TG TA TTTCACACAA
                     AGA AC AT AAAGTGTGTT
                      T G CCCC_
GAM34 MSTP043 3' TGTCTTTATTTTTACCAAAGA 2223
                                           C TTC
                    TCTTTGGTA AAAAT ACA
                    AGAAACCAT TTTTA TGT
                        _ TTTC
GAM34 Nup43 3' TGTGCAAAATTTTAGTATCAGA 2075
                                              CA
                     TTTGGTAC AAAATTT CACA
                     AGACTATG TTTTAAA GTGT
                        Α
                           AC
GAM34 RPS6KA4 3' TGTGCAATTACGTCCACCAAAG 1072
                                             __ AA T
        Α
                     TCTTTGGT AC AATT CACA
                     AGAAACCA TG TTAA GTGT
                        CC CA C
GAM34 SLC17A6 3' TGAAACTTGTGCCACAGA 1911
                                        Т
                                            AA
```

TCT TGGTACAA TTTCA

```
С
                          C_{-}
GAM34 TERA 3' TGTATGAATAGTACCAAAG 1949
                                         AAAAT C
                    CTTTGGTAC TTCA ACA
                    GAAACCATG AAGT TGT
                        AT___ A
GAM34 VAV3 3' TTGTGTAGAGTTCTAATACCAA 1273
                                           CAA_ TC
                      TCTTTGGTA AATT ACACAA
        AGA
                    AGAAACCAT TTGA TGTGTT
                        AATC GA
GAM34 LOC120892 3' TGCAATTTTTTTTACCAAAGA 2987
                                            C__ T
                    TCTTTGGTA AAAATT CA
                    AGAAACCAT TTTTAA GT
                        TTT
                            С
GAM34 LOC155434 3' TTGTGTGATTTCGTACCAAA 3376
                                           A TT
                    TTTGGTAC AAA TCACACAA
                    AAACCATG TTT AGTGTGTT
                        C __
GAM34 LOC169966 3' ATTTTGCCTTTACCAAAGA 3252
                    TCTTTGGTA CAAAAT
                    AGAAACCAT GTTTTA
                        TTCC
GAM34 LOC221272 3' TGTCTGCTCTGTACCAGAGA 3616
                                            AAATTT C
                    TCTTTGGTACA CA ACA
                    AGAGACCATGT
                                 GT TGT
                         CTC___ C
GAM34 LOC221968 3' TTGTGTGAAATTTTGTCGAA 3569
                                          GT
                    TTTG ACAAAATTTCACACAA
                    AAGC TGTTTTAAAGTGTGTT
GAM34 LOC86651 5' TTGTGTGAAAGATGTTTCATAC 2830
                                            CA
        CAAGGA
                        CTTTGGTA AAAT TTCACACAA
                     GGAACCAT TTTG AAGTGTGTT
                        AC TAGA
GAM34 LOC90322 3' GAGATTCCATACTAAAGA 2632
                                          CAA
                    TCTTTGGTA AATTTC
                    AGAAATCAT TTAGAG
                        ACC
GAM35 MYO1E 5' ATGGAGTCCCCTCTAGGGTT 1168
                                         ATC A A
```

GACC GA GG GACTCCAT

AGA ACCGTGTT AAAGT

```
TTGG CT CC CTGAGGTA
                      GAT C _
GAM35 ROCK2 3' ATGAAGTCTTTTAACAGTCTC 2737
                                        CATCGA
                                                  С
                    GAGAC AGGAGACT CAT
                    CTCTG TTTTCTGA GTA
                      ACAA
GAM35 MGC15937 5' GAGTTTCTTCTTCAAGGTCTCA 2383
                                           ATC
                    TGAGACC GAAGGAGA CTC
                    ACTCTGG CTTCTTCT GAG
                       AA
                            TT
GAM35 STK16 5' GAGCTCTTCGGTAGCCTCA 2937
                                       ACC
                                             G A
                    TGAG ATCGAAG AG CTC
                    ACTC TGGCTTC TC GAG
                      CGA
GAM35 LOC148029 5' GGAGTCTCCATCCTCA
                                 3116
                                       ACCATC A
                    TGAG GA GGAGACTCC
                    ACTC CT CCTCTGAGG
                         __ A
GAM35 LOC169436 5' TGGAGTTCAATGAGCTCA 3261
                                        AC C AGGAG
                    TGAG CAT GA ACTCCA
                    ACTC GTA CT TGAGGT
                      GA A
GAM35 LOC256267 3' ATGGAGTCTCCCTCTGTC 3713
                                        CATC A
                    GAC GA GGAGACTCCAT
                    CTG CT CCTCTGAGGTA
                     T___ C
GAM35 LOC257426 3' GAGTCCTTCGGTGGCCTCA 2755
                                              GA
                    TGAG CCATCGAAGGA CTC
                    ACTC GGTGGCTTCCT GAG
                      С
GAM35 LOC92466 3' ATGGAGTCTCCCTCTGTC 2858
                                        CATC A
                    GAC GA GGAGACTCCAT
                    CTG CT CCTCTGAGGTA
                     T___
                        _ C
GAM36 MME
           3' AAAAAAGTTACAGAAATA 785
                                         AA
                    TATTTTTGTA ACTTTTTTT
                    ATAAAGACAT TGAAAAAA
GAM36 MME
           3' AAAAAAGTTACAGAAATA 1377
                                         AA
```

TATTTTTGTA ACTTTTTTT

ATAAAGACAT TGAAAAAA

3' AAAAAAGTTACAGAAATA 1378 GAM36 MME AA TATTTTTGTA ACTTTTTTT ATAAAGACAT TGAAAAAA GAM36 MME 3' AAAAAAGTTACAGAAATA 1379 AA TATTTTTGTA ACTTTTTTT ATAAAGACAT TGAAAAAA GAM36 DKFZP434C212 3' AAAAAGTACACAGAAATATT 2832 **AAA** AATATTTTTGT ACTTTTT TTATAAAGACA TGAAAAA CA GAM36 FLJ11275 3' TAAAATGGGATTTATAAAAATA 1821 A TT TT AATATTTTGTAAA CT TTTTA TTATAAAAATATTT GG AAAAT A GT GAM36 GOLPH3 3' TAAAAAAAGTTTTACTGCCATA 1981 TTTT AATAT GTAAAACTTTTTTA TT TTATA CATTTTGAAAAAAAT **CCGT** GAM36 KIAA0563 5' TAAAAAAAGGAGCAAAAGTAT 1565 **AAAA** ATATTTTGT CTTTTTTA TATGAAAACG GAAAAAAAT AG GAM36 TAF2 3' AGAAAGTTTGACAAAAATA 997 TATTTTTGT AAACTTTTT ATAAAAACA TTTGAAAGA G GAM36 LOC147071 5' TAAAAAAAGGAGCAAAAGTAT 2965 **AAAA** ATATTTTTGT CTTTTTTTA TATGAAAACG GAAAAAAAT $AG_{\underline{}}$ GAM36 LOC147639 5' AAAAGTGCTGCAAAAATATT 3110 AΑ AATATTTTTGTA ACTTTT TTATAAAAACGT TGAAAA CG

GAM36 LOC201173 5' TAAAAAAAGGAGCAAAAGTAT 3405

ATATTTTTGT CTTTTTTTA

AAAA

AG

GAM36 LOC201220 5' TAAAAAAAGGAGCAAAAGTAT 3406 AAAA

ATATTTTTGT CTTTTTTTA

TATGAAAACG GAAAAAAAT

AG

GAM37 MME 3' AAAAAAAGTTACAGAAATA 785 AA

TATTTTTGTA ACTTTTTTT

ATAAAGACAT TGAAAAAA

AA

GAM37 MME 3' AAAAAAAGTTACAGAAATA 1377

TATTTTTGTA ACTTTTTTT

ATAAAGACAT TGAAAAAA

GAM37 MME 3' AAAAAAAGTTACAGAAATA 1378 AA

TATTTTTGTA ACTTTTTTT

ATAAAGACAT TGAAAAAA

GAM37 MME 3' AAAAAAAGTTACAGAAATA 1379 AA

TATTTTTGTA ACTTTTTTT

ATAAAGACAT TGAAAAAA

GAM37 DKFZP434C212 3' AAAAAGTACACAGAAATATT 2832 AAA

AATATTTTTGT ACTTTTT

TTATAAAGACA TGAAAAA

CA_

GAM37 FLJ11275 3' TAAAATGGGATTTATAAAAATA 1821 A TT

TT AATATTTTTGTAAA CT TTTTA

TTATAAAAATATTT GG AAAAT

A GT

GAM37 GOLPH3 3' TAAAAAAAGTTTTACTGCCATA 1981 TTTT

TT AATAT GTAAAACTTTTTTA

TTATA CATTTTGAAAAAAT

CCGT

GAM37 KIAA0563 5' TAAAAAAAGGAGCAAAAGTAT 1565 AAAA

ATATTTTTGT CTTTTTTTA

TATGAAAACG GAAAAAAAT

 $AG_{\underline{}}$

GAM37 TAF2 3' AGAAAGTTTGACAAAAATA 997 A

TATTTTTGT AAACTTTTT

Δ	Τ.	Δ	Δ.	Δ	Δ	Δ	$C\Delta$	TTT	rG.	Δ	Δ	Δ	α	Δ
$\overline{}$		┑	$\boldsymbol{\mathcal{A}}$	┑	$\boldsymbol{\mathcal{A}}$	~	\sim		· 🔾	~	$\boldsymbol{\mathcal{L}}$	~	v.	~

G GAM37 LOC147071 5' TAAAAAAAGGAGCAAAAGTAT 2965 AAAA ATATTTTTGT CTTTTTTTA TATGAAAACG GAAAAAAAT AG GAM37 LOC147639 5' AAAAGTGCTGCAAAAATATT 3110 AA AATATTTTTGTA ACTTTT TTATAAAAACGT TGAAAA CG GAM37 LOC201173 5' TAAAAAAAGGAGCAAAAGTAT 3405 **AAAA** ATATTTTTGT CTTTTTTTA TATGAAAACG GAAAAAAAT AG GAM37 LOC201220 5' TAAAAAAAGGAGCAAAAGTAT 3406 **AAAA** ATATTTTTGT CTTTTTTTA TATGAAAACG GAAAAAAAT AG__ GAM38 MARK1 3' TATAATAAAACATGATTGCTTA 1857 TA TAC TTA CGATC GTTTTATTATA AAT GTTAG CAAAATAATAT TC TΑ GAM39 DKK1 3' AAAATACTAGCTTATTTTCTGA 1417 TAA TCAGAAAG AGGTT TATTTT AGTCTTTT TTCGA ATAAAA Α TC_ GAM39 KERA 3' AAAATATTGAATGCTTTCT 1349 AG AGAAAG GTTTAATATTTT TCTTTC TAAGTTATAAAA G_{-} GAM39 PPP1R12A 3' AAAATACTACATCTTTCTGG 931 G TTAA TCAGAAAGA GT TATTTT GGTCTTTCT CA ATAAAA A TC_ GAM39 S100B 3' AAAATTGAAAACCTCTTTC 1284 AAT GAAAGAGGTTT ATTTT CTTTCTCCAAA TAAAA AGT GAM39 DKFZP564I0422 3' AAAATATTGCATTCTTCTGAT 2196 A GTT ATCAGAA GAG TAATATTTT

```
TAGTCTT CTT GTTATAAAA
                       _ AC_
GAM39 EML4 3' AAAATGTTTCCTCTTTCT 1876
                                         TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                        Т
GAM39 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                          AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT
GAM39 KIAA1054 3' AAAATGGTACCTCTTTC
                                          TTAA
                                 2820
                     GAAAGAGGT TATTTT
                     CTTTCTCCA GTAAAA
                        TG
GAM39 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                              TAA
                     TCAG AAGAGGTT TATTTT
                     AGTC TTCTTCGA ATAAAA
                      С
                          C__
GAM39 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                            AGG
                     CAGAAAG TTTAATATTTT
                     GTCTTTC GAATTATAAAA
                       AATA
GAM39 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                            AAAG
        Т
                     ATCAG AGGTTTAATATTTT
                     TAGTC TCCAAATTATAAAA
                       CAGG
GAM40 DKK1
            3' AAAATACTAGCTTATTTTCTGA 1417
                                            TAA
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                        A TC
            3' AAAATATTGAATGCTTTCT 1349
GAM40 KERA
                                        AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G_{-}
GAM40 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                            G TTAA
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
```

A TC__

GAAAGAGGTTT ATTTT

AAT

3' AAAATTGAAAACCTCTTTC 1284

GAM40 S100B

```
CTTTCTCCAAA TAAAA
```

AGT GAM40 DKFZP564I04223' AAAATATTGCATTCTTGAT 2196 A GTT ATCAGAA GAG TAATATTTT TAGTCTT CTT GTTATAAAA _ AC_ 3' AAAATGTTTCCTCTTTCT 1876 GAM40 EML4 TTT AGAAAGAGG AATATTTT TCTTTCTCC TTGTAAAA Т GAM40 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990 AA GTTT ATCAG AGAG AATATTTT TAGTC TCTC TTATAAAA CG ATT GAM40 KIAA1054 3' AAAATGGTACCTCTTTC 2820 TTAA GAAAGAGGT TATTTT CTTTCTCCA GTAAAA TG GAM40 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431 TAA Α TCAG AAGAGGTT TATTTT AGTC TTCTTCGA ATAAAA С GAM40 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011 AGG CAGAAAG TTTAATATTTT GTCTTTC GAATTATAAAA **AATA** GAM40 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296 **AAAG** Т ATCAG AGGTTTAATATTTT TAGTC TCCAAATTATAAAA CAGG 3' AAAATACTAGCTTATTTTCTGA 1417 GAM41 DKK1 TAA TCAGAAAG AGGTT TATTTT AGTCTTTT TTCGA ATAAAA A TC_ GAM41 KERA 3' AAAATATTGAATGCTTTCT 1349 AG AGAAAG GTTTAATATTTT

G_
GAM41 PPP1R12A 3' AAAATACTACATCTTTCTGG 931 G TTAA
TCAGAAAGA GT TATTTT
||||||||| || |||||

TCTTTC TAAGTTATAAAA

```
GGTCTTTCT CA ATAAAA
                        A TC__
GAM41 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                           AAT
                     GAAAGAGGTTT ATTTT
                     CTTTCTCCAAA TAAAA
                         AGT
GAM41 DKFZP564I0422 3' AAAATATTGCATTCTTGAT 2196
                                            A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                        _ AC_
GAM41 EML4
            3' AAAATGTTTCCTCTTTCT 1876
                                         TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                        Т
GAM41 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                          AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT_
GAM41 KIAA1054 3' AAAATGGTACCTCTTTC
                                  2820
                                          TTAA
                     GAAAGAGGT TATTTT
                     CTTTCTCCA GTAAAA
                        TG
GAM41 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                              TAA
                                          Α
                     TCAG AAGAGGTT TATTTT
                     AGTC TTCTTCGA ATAAAA
                      С
                           С
GAM41 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                            AGG
                     CAGAAAG TTTAATATTTT
                     GTCTTTC GAATTATAAAA
                       AATA
      LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                            AAAG
GAM41
         Т
                     ATCAG AGGTTTAATATTTT
                     TAGTC TCCAAATTATAAAA
                       CAGG
GAM42 DKK1
            3' AAAATACTAGCTTATTTTCTGA 1417
                                             TAA
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                        A TC_
GAM42 KERA
            3' AAAATATTGAATGCTTTCT 1349
                                        AG
```

AGAAAG GTTTAATATTTT

```
TCTTTC TAAGTTATAAAA
                       G_
GAM42 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                         G TTAA
                    TCAGAAAGA GT TATTTT
                    GGTCTTTCT CA ATAAAA
                        A TC
GAM42 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                          AAT
                    GAAAGAGGTTT ATTTT
                    CTTTCTCCAAA TAAAA
                         AGT
GAM42 DKFZP564I0422 3' AAAATATTGCATTCTTCTGAT 2196
                                              A GTT
                    ATCAGAA GAG TAATATTTT
                    TAGTCTT CTT GTTATAAAA
                       AC
GAM42 EML4 3' AAAATGTTTCCTCTTTCT 1876
                                        TTT
                    AGAAAGAGG AATATTTT
                    TCTTTCTCC TTGTAAAA
                        T___
                                        AA GTTT
GAM42 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                    ATCAG AGAG AATATTTT
                    TAGTC TCTC TTATAAAA
                      CG ATT
GAM42 KIAA1054 3' AAAATGGTACCTCTTTC 2820
                                         TTAA
                    GAAAGAGGT TATTTT
                    CTTTCTCCA GTAAAA
                        TG
GAM42 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                             TAA
                    TCAG AAGAGGTT TATTTT
                    AGTC TTCTTCGA ATAAAA
                      С
                          C__
GAM42 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                            AGG_
                    CAGAAAG TTTAATATTTT
                     GTCTTTC GAATTATAAAA
                       AATA
GAM42 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                           AAAG
        Т
                     ATCAG AGGTTTAATATTTT
```

TAGTC TCCAAATTATAAAA

TCAGAAAG AGGTT TATTTT

TAA

CAGG

3' AAAATACTAGCTTATTTTCTGA 1417

GAM43 DKK1

```
AGTCTTTT TTCGA ATAAAA
                        A TC_
            3' AAAATATTGAATGCTTTCT 1349
GAM43 KERA
                                        AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G_
GAM43 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                           G TTAA
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
                        A TC
GAM43 S100B
            3' AAAATTGAAAACCTCTTTC 1284
                                          AAT
                     GAAAGAGGTTT ATTTT
                     CTTTCTCCAAA TAAAA
                         AGT
GAM43 DKFZP564I0422 3' AAAATATTGCATTCTTGAT 2196
                                              A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                       _ AC_
            3' AAAATGTTTCCTCTTTCT 1876
GAM43 EML4
                                        TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                        Т
GAM43 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                          AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT_
GAM43 KIAA1054 3' AAAATGGTACCTCTTTC
                                 2820
                                          TTAA
                     GAAAGAGGT TATTTT
                     CTTTCTCCA GTAAAA
                        TG
GAM43 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                              TAA
                                          Α
                     TCAG AAGAGGTT TATTTT
                     AGTC TTCTTCGA ATAAAA
                      С
                          C__
GAM43 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                            AGG_
                     CAGAAAG TTTAATATTTT
                     GTCTTTC GAATTATAAAA
                       AATA
```

GAM43 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296

ATCAG AGGTTTAATATTTT

Т

AAAG

```
TAGTC TCCAAATTATAAAA
                       CAGG
            3' AAAATACTAGCTTATTTTCTGA 1417
                                           _ TAA
GAM44 DKK1
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                        A TC
GAM44 KERA
            3' AAAATATTGAATGCTTTCT 1349
                                         AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G
GAM44 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                            G TTAA
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
                        A TC
GAM44 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                           AAT
                     GAAAGAGGTTT ATTTT
                     CTTTCTCCAAA TAAAA
                         AGT
GAM44 DKFZP564I0422 3' AAAATATTGCATTCTTGAT 2196
                                              A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                        _ AC_
            3' AAAATGTTTCCTCTTTCT 1876
GAM44 EML4
                                         TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                        T_
GAM44 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                           AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT_
GAM44 KIAA1054 3' AAAATGGTACCTCTTTC
                                          TTAA
                                  2820
                     GAAAGAGGT TATTTT
                     11111111 111111
                     CTTTCTCCA GTAAAA
                        TG
GAM44 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                          Α
                                              TAA
                     TCAG AAGAGGTT TATTTT
                     AGTC TTCTTCGA ATAAAA
```

С

GAM44 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011

 C_{-}

CAGAAAG TTTAATATTTT

AGG

```
AATA
GAM44 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                           AAAG
         Т
                     ATCAG AGGTTTAATATTTT
                     TAGTC TCCAAATTATAAAA
                       CAGG
GAM45 DKK1
            3' AAAATACTAGCTTATTTTCTGA 1417
                                             TAA
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                        A TC
GAM45 KERA
            3' AAAATATTGAATGCTTTCT 1349
                                         AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G
GAM45 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                           G TTAA
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
                        A TC__
GAM45 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                           AAT
                     GAAAGAGGTTT ATTTT
                     CTTTCTCCAAA TAAAA
                         AGT
GAM45 DKFZP564I0422 3' AAAATATTGCATTCTTCTGAT 2196
                                              A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                        _ AC_
GAM45 EML4
            3' AAAATGTTTCCTCTTTCT 1876
                                         TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                         T___
GAM45 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                          AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT_
GAM45 KIAA1054 3' AAAATGGTACCTCTTTC 2820
                                          TTAA
                     GAAAGAGGT TATTTT
                     CTTTCTCCA GTAAAA
                         \mathsf{TG}_{\_}
GAM45 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                          Α
                                              TAA
```

TCAG AAGAGGTT TATTTT

GTCTTTC GAATTATAAAA

```
AGTC TTCTTCGA ATAAAA
                      С
                          C__
GAM45 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                           AGG
                    CAGAAAG TTTAATATTTT
                    GTCTTTC GAATTATAAAA
                       AATA
GAM45 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                           AAAG
        Т
                     ATCAG AGGTTTAATATTTT
                    TAGTC TCCAAATTATAAAA
                      CAGG
GAM46 EFG1
            3' TGTCTATCTCAACTCTATT 3661
                                        ATC TC
                    AATAGAGTT GAT AGACA
                    TTATCTCAA CTA TCTGT
                        CT
GAM46 PHYH 3' TCTGCTATAACTCTTTCA 1281 T CGATT
                    TGAA AGAGTTAT CAGA
                    ACTT TCTCAATA GTCT
                          TC___
GAM46 SLC6A3 3' TGTCTGTTGACCAATCTCTATT 795
                                        TTA___ TT
        CA
                     TGAATAGAG TCGA CAGACA
                    ACTTATCTC AGTT GTCTGT
                        TAACC
            3' TGCCTGACAATTAGCTCTATTC 2447
GAM46 H2AV
                                           TCGAT A
        Α
                     TGAATAGAGTTA TCAG CA
                    ACTTATCTCGAT AGTC GT
                         TAAC_ C
GAM46 HMP19 3' GTCTGAACCGATATTTCT 3408
                    AGAG TATCG TTCAGAC
                    TCTT ATAGC AAGTCTG
                      T C
GAM46 KIAA1726 3' TGTCTGAAAGCAACCCTACTC 2786
                                         A A ATCGA
                    GA TAG GTT TTCAGACA
                    CT ATC CAA AAGTCTGT
                     C C CGA
GAM47 SOX11
            3' GTCTCACTGTTTGATCAAACTT 992
                                          A ATTTTT
        CT
                     AGAGGTTT AT GTGAGAC
                    TCTTCAAA TA
                                CACTCTG
                       C GTTTGT
GAM47 CAP350 3' TCTTGTAATAGTTAAACCTC 1554
                                          ATTT TG
                    GAGGTTTAAT TTG AGA
```

```
CTCCAAATTG AAT TCT
                         AT__ GT
GAM47 DKFZP564A022 3' TCTCACAAATATAAAACC 2174
                                             A TT
                     GGTTT ATATT TGTGAGA
                     CCAAA TATAA ACACTCT
                       Α
GAM47 FLJ11730 3' CTCACAAAGATAAACATC 2005
                                        G TAA
                     GA GTT TATTTTTGTGAG
                     CT CAA ATAGAAACACTC
                      Α
GAM47 FLJ20686 5' CTCACAGTCCTACTGAACCTC 1765
                                            A TTT
                     GAGGTTTA TA TTGTGAG
                     CTCCAAGT AT GACACTC
                        C CCT
GAM47 FRSB
            3' GTCCCAGGGAGATATTAGACCT 1236
                                                GA
         CT
                      AGAGGTTTAATATTTTT TG GAC
                     TCTCCAGATTATAGAGG AC CTG
                            GC
GAM47 KIAA1600 3' ACAAAAAGACTAAACCTCT 2919
                                           ATA
                     AGAGGTTTA TTTTTGT
                     TCTCCAAAT AAAAACA
                         CAG
GAM47 LOC124801 3' GTCTCACATTTGGCCCAAACCT 2996
                                             AATATTTT
         С
                      GAGGTTT
                                TGTGAGAC
                     CTCCAAA
                               ACACTCTG
                        CCCGGTTT
GAM47 LOC221035 3' TCCCAGTATTAAACCT
                                           TTTTG A
                                  3593
                     AGGTTTAATAT
                                 TG GA
                     TCCAAATTATG
                                 AC CT
                           С
GAM47 LOC51611 3' CGAAAATTAAACCTCT
                                           ΑT
                                  1653
                     AGAGGTTTAAT TTTTG
                     TCTCCAAATTA AAAGC
GAM48 AXUD1 3' TTTATTCCATTTCTCTCT 2309
                                          GA
                     AGAGAGAAA GAATAAA
                     TCTCTCTTT CTTATTT
                         AC
GAM48 BSN
            3' ATTTTTCTTTTGTTTCTCTCT 1024
                                          G T
```

AGAGAGAAA AGAA AAAAAT

```
TCTCTCTTT TTTT TTTTTA
```

G C

GAM48 DPYSL2 3' AATATTTTCGTGTCTCTCTC 822 A GA TA

T AGAGAGA AGA A AAAATATT

TCTCTCT TCT T TTTTATAA

G G GC

GAM48 EVA1 3' AATGTGTTTACTCTCTTTCCTT 1250 A A A

C GAG GAAAGAGA TAAA ATATT

CTT CTTTCTCT ATTT TGTAA

C C G

GAM48 PTMS 3' TTTGCTCTCTTTCTCCCT 959 A A

AG GAGAAAGAGA TAAA

TC CTCTTTCTCT GTTT

C C

GAM48 SELE 3' TTTTGTGGCTTTCTTTCT 748 AGA

AGAGAGAAG ATAAAA

TCTTTCTTTC TGTTTT

GG_

GAM48 SLC7A6 3' AATATTTTTGTACCTTTCTCCT 1076 A AGA

AG GAGAAAG ATAAAAATATT

TC CTCTTTC TGTTTTTATAA

CA

GAM48 TGFBR2 5' TTTCTTCTAGTTCTTTCT 1003 AG T

AGAGAGAA AGAA AAA

TCTTTCTT TCTT TTT

GA C

GAM48 DKFZP586N0721 5' TTTTATTCCCTTTCCTCT 1627 A A

AGAG GAAAG GAATAAAA

TCTC CTTTC CTTATTTT

С

GAM48 DKFZp761J139 5' TTTATTCTCTCTGTCTCT 2242 GAA

AGAGA AGAGAATAAA

TCTCT TCTCTTATTT

GTC

GAM48 FLJ10468 3' TTTTATTCTCCTTTC 1779 AAA

Т

GAGAG GAGAATAAAA

CTTTC CTCTTATTTT

GAM48 FLJ20485 3' AATATTTTTAAAATCTCCTTTC 1874 AAA A_

AGAGAG GAGA TAAAAATATT

```
TCTTTC CTCT ATTTTTATAA
                        _ AAA
GAM48 H2BFQ 3' ATATTTACTCTTTCTGTC 2523 G
                                          AATAA
                     GA AGAAAGAG AAATAT
                     CT TCTTTCTC TTTATA
                     G
                         Α
GAM48 KIAA0077 3' TTTTATTCTCTCTCCCTTT 2774
                                        A A
                    AGAG GA AGAGAATAAAA
                     TTTC CT TCTCTTATTTT
                      CC
GAM48 KIAA0295 3' TTTTTTCCCTTTCTCTCT 2807
                                          A T
                    AGAGAGAAAG GAA AAA
                    TCTCTCTTTC CTT TTT
                         СТ
GAM48 KIAA0828 3' AATATTTTGCCTTCTTTC 3195
                                            AATA
        Т
                     AGAGAGAAGAG AAAATATT
                     TCTTTCTTTCTT TTTTATAA
                         CCG_
GAM48 KIAA1203 3' AATATTTTTATTCTTGAGTTAT 2921
                                         GAGAAA
        CT
                      AGA GAGAATAAAAATATT
                     TCT TTCTTATTTTATAA
                      ATTGAG
GAM48 OSBPL8 3' TTTTTATTATCCTCCTCTCT 1928
                                         AAA G
                    AGAGAG GA AATAAAAA
                    TCTCTC CT TTATTTTT
                       CTC A
GAM48 PAK6
            3' AATATTTTAGATTCTTCTGCT 1897 A AA
        С
                     GAG AGAA GAG TAAAAATATT
                     CTC TCTT CTT ATTTTTATAA
                      G _ AG
GAM48 POLR3F 3' AATATTTTCACTGTTCCTTCTT 2547
                                           AA
        TCT
                      AGAGAGAA G GAATA AAAATATT
                     TCTTTCTT C CTTGT TTTTATAA
                        __ CAC
GAM48 RNF11
            3' TTTATTCTCTTTCTT 1495
                                     G
                    AGA AGAAAGAGAATAAA
                     TCT TCTTTCTCTTATTT
GAM48 SLC16A6 5' TTTATTCTCTTCCCTTCT 1143
                                       AGA
```

AGAG AAGAGAATAAA

```
TCTT TTCTCTTATTT
                       CCC
GAM48 LOC144321 3' TTTTATTCCCTTCTCTC
                                          AA
                                  3267
                     GAGAGAA G GAATAAAA
                     CTCTCTT C CTTATTTT
                        _ C
GAM48 LOC150951 5' ATATTTTTATTTTCTTCCT 3336
                     AG AAGAGAATAAAAATAT
                     TC TTCTTTTATTTTTATA
                      С
GAM48 LOC199920 5' AATATTTTTATTCTTTGATTCT 3435
                                            AA
         Т
                      GAGAG AGAGAATAAAAATATT
                     TTCTT TTTCTTATTTTTATAA
                       AG
GAM48 LOC256435 3' AATATTTTTAAATGTTGTCTCT 3675
                                             AAGAGAA
         CT
                      AGAGAGA
                                TAAAAATATT
                     TCTCTCT
                              ATTTTTATAA
                        GTTGTAA
      ADAMTS5 3' TATTTTCACAACTACTTTCTCT 1352
GAM49
                                              AATA
         CT
                      AGAGAGAAG AG AAAATA
                     TCTCTCTTC TC TTTTAT
                         A AACAC
             3' TATTCCCAGCCTTTCTTTCTTC 1404
GAM49 ADAT1
                     GAAGAGAAAG GAATA
                     CTTCTTTCTTTC CTTAT
                          CGACC
GAM49 ADCY2
             3' TTTTATTTTCCTGTCTTC 2711
                                        G AAA
                     GAAGA AG GAGAATAAAA
                     CTTCT TC CTTTTATTTT
                       G
GAM49 AHR
            3' ATTTTTGTTACTCTCTTC 840
                     GAAGAGAG AA GAGAAT
                     CTTCTCTC TT TTTTTA
                        A G
GAM49 BSN
            3' ATTTTTCTTTTGTTTCTCTCT 1025
                                          G T
                     AGAGAGAAA AGAA AAAAAT
                     TCTCTCTTT TTTT TTTTTA
                         G C
GAM49 BSN
            3' TCTCCCCCTTTCTCTCTC 1026
```

GAAGAGAAA GAGA

```
CCCC
GAM49 C7
           3' TATTCCTTATTTCTCTTT
                                 756
                      GAAGAGAGA AAG GAATA
                      TTTCTCTTT TTC CTTAT
                          Α _
GAM49 CFTR
             3' TATTCCTTTTTCTCTCCTC 753
                      GA GAGAGAAAGAG AATA
                      11 11111111111 1111
                      CT CTCTCTTTTTC TTAT
                       С
                             C
GAM49
      CHD2
             3' ATATTTTTCTGATCCCCCACT 813
                                            AA____ GAAT_
                                                          Ш
                                 GA AAAAATA T
         CTCTCTTC
                           AGA
                      Ш
                          TCT CT TTTTTAT A
                        CACCCC AGTCT
GAM49 CKN1
             3' TATTTTATTCTTTCTTC
                                  703
                                           AG
                      GAAGAGAAA AGAATA
                      CTTCTTTCTT TTTTAT
                          \mathsf{A}_{-}
GAM49 CTH
            5' TGTTCTTTTCCTCTCTC 867
                                          Α
                      GAAGAGAG AAGAGAATA
                      CTTCTCTC TTTTCTTGT
                          C
                                            AA_
GAM49 EVA1
             3' ATTTTTATTTTTATGTCTCTC 1251
                      GAGAGA GAGAATAAAAAT
                      CTCTCT TTTTTATTTTTA
                         GTA
GAM49 FBXL11 3' TTGTTCCCCCTCTCTTT 1426
                                             AAGA
                      GAAGAGAGA GAATAA
                      TTTCTCTCT CTTGTT
                          CCCC
GAM49 GATA3
             3' TATTTTCCTTCTCTC
                                   893
                                        Α
                                            Α
                      GA GAGAGAA GAGAATA
                      11 1111111 1111111
                      CT CTCTCTT CTTTTAT
                           С
GAM49 GDI2
            5' TTTTCCTCTCTTTCTCTT 832
                                            AT
                      GAGAGAAAGAGA AAAA
                      TTCTCTTTCTCT TTTT
                           CC
GAM49 HD
            3' ATTCTCCCTTCTCTTT
                                  899
                      GAAGAGAAA GAGAAT
```

CTTCTCTCTTT CTCT

TTTCTCTCTT CTCTTA

CC

GAM49 HTR2C 3' TATTTTTGCTCTCCCTCCCTTC 781 A AAA A GAAG GAG GAGA TAAAAATA CTTC CTC CTCT GTTTTTAT C C_ C 3' TTCTCTTCCCCTCTCTTC 3302 GAM49 LGR6 GAAGAGAG AAGAGAA 1111111 1111111 CTTCTCTC TTCTCTT CCC GAM49 LRP8 3' TCTCTTATTTCTCTTTTC 2326 GAAGAGAA AGAGA CTTTTCTCTT TCTCT TAT GAM49 LRP8 3' TCTCTTATTTCTCTTTTC 1139 GAAGAGAA AGAGA CTTTTCTCTT TCTCT TAT GAM49 MEF2C 5' TTTTTTTTCTCTCTCTCTCTCT 926 С GA AGAGAGA AGAGAA AAAAA 11 1111111 111111 11111 CT TCTCTCT TCTCTT TTTTT С С 3' TATTTTTGGTTTCTCTCT 929 GAM49 MSR1 AGAGAGAAA GAGAATA TCTCTCTTT TTTTTAT GG GAM49 PCDH11X 3' TATTTTCACATTTTCTCTCT 2299 AGAGAGAAA GAGAATA TCTCTCTTT CTTTTAT TACA GAM49 PCDH11X 3' TATTTTCACATTTTCTCTCT 2301 AGAGAGAAA GAGAATA TCTCTCTTT CTTTTAT **TACA** GAM49 PCDH11Y 3' TATTTTCACATTTTCTCTCT 2303 AGAGAGAAA GAGAATA TCTCTCTTT CTTTTAT TACA GAM49 PCMT1 3' TATCTTCTGCTCTTTCTTC 1205 A_ GA GAAGAGAA AGA ATA

```
CTTCTTTCT TCT TAT
                           CG TC
             3' TATTTTTTTTCTCTATTC
GAM49 PCNA
                                   939
                                          G
                       GAA AGAGAAAGAGAATA
                       CTT TCTCTTTTTTTAT
GAM49 PRELP
              3' ATTCGTTTTCTCTCTCTC 950
                                                Α
                       GA AGAGAGAAAG GAAT
                       11 1111111111 1111
                       CT TCTCTCTTTT CTTA
                        С
                             G
GAM49
     PTMS
             3' TTTGCTCTCTTTCTCCCT 958
                                          Α
                                                Α
                       AG GAGAAAGAGA TAAA
                       11 1111111111 1111
                       TC CTCTTTCTCT GTTT
                        С
                             С
GAM49
     SLC4A4 3' TATTTTTATTCTCTTAAGTCTT 1054
                                              GAGA
         Τ
                       GAAGA AAGAGAATAAAAATA
                       TTTCT TTCTCTTATTTTAT
                         GAA
      TRPS1
              5' TATTTCCTTTCTCTCTT 1471
                                                  TAA
GAM49
                       AGAGAGAAGAGAA AAATA
                       1111111111111 11111
                       TCTCTCTTTCTCTT TTTAT
                             TCC
GAM49 ARS2
             5' TTTTGTTCGCCTCTCTTC 1650
                                             AAAGA
                       GAAGAGAG GAATAAAA
                       CTTCTCTC
                                 CTTGTTTT
                           CG_{-}
GAM49 BRD4
             3' TATTTTTAATTCTCTCTC 2368
                                              Α
                       GAAGAGAA GAGAATA
                       CTTCTCTCTT TTTTTAT
                           AA
GAM49 CAPN13 3' TATTTTACCTGCCTCTCTC 2485
                                               AA __
                       GAAGAGAG AG AGAATA
                       11111111 11 111111
                       CTTCTCTC TC TTTTAT
                           CG CA
GAM49 CECR6
              3' TTACCCTCTCTCTTC 2218
                                              AA AA
                       GAAGAGAG AGAG TAA
                       CTTCTCTC TCTC ATT
                           C \subset CC
GAM49 DKFZP434I0714 5' TTTTTGTTTTTCCCCCTCTTC 3362
                                                   AGAAA
```

GAAGAG GAGAATAAAAA

```
CCCC
GAM49 DKFZP564G092 5' TATTCCTCTTTCTTTTC
                                     1639
                                               A A
                      GAAGAGAGA AG GAATA
                      CTTTTCTTT TC CTTAT
                         C _
GAM49 DKFZp564K142 3' TATCCTCTTAACCTTCTCTC 2231
                                                 A A
                      GAAGAGAG AAGAG ATA
                      CTTCTCTT TTCTC TAT
                         CCAA
                               C
GAM49 DKFZp566D234 3' TATTTTTTTTCTCTGTC
                                      2612
                                            AG
                      GA AGAGAAAGAGAATA
                      CT TCTCTTTTTTTAT
                       G
GAM49 DKFZP566I1024 3' TTTTAAAATCTATTCTCTC 2878
                                               GAA
                      GAGAGAA AGA TAAAA
                      CTCTCTT TCT ATTTT
                         A AAA
GAM49 EPI64
            3' TATTTTGACATCTCTCTCTT 3681
                                            A GAATA
         С
                      GAAGAGA AGA AAAATA
                      CTTCTCTCT TCT TTTTAT
                         C ACAG
GAM49 FLJ00012 3' TATTTTTATCTCTATCTCCT 2985 A A A
                      AG GAGA AGAGA TAAAAATA
                      TC CTCT TCTCT ATTTTTAT
                       _ A
GAM49 FLJ10460 3' ATTTTTATTCTACCTTTC 1778
                                          AAAG
                      GAGAG AGAATAAAAAT
                      CTTTC TCTTATTTTTA
                        CA__
GAM49 FLJ10687 3' TTTATTCATTTCTCTCCTC 1793
                                              GA
                      GA GAGAGAAA GAATAAA
                      11 11111111 1111111
                      CT CTCTCTTT CTTATTT
                       С
                           \mathsf{A}_{-}
GAM49 FLJ10738 3' TATTTTTACTCTCCCTCTTC 1799
                                            AGAAA A
                      GAAGAG GAGA TAAAAATA
                      CTTCTC CTCT ATTTTTAT
                        C____ C
GAM49 FLJ13158 3' TTCTCTCCCTTTCTCTC 2109
                                            A__
```

GAAGAGAA AGAGAA

CTTCTC TTTTTGTTTTT

```
CTTCTCTTT TCTCTT
                          CCC
GAM49 FLJ20294 5' TATTCCTGTCTCCTCTTT 1747
                                           _ A A
                      GAAGAG AGA AG GAATA
                      TTTCTC TCT TC CTTAT
                        CG
GAM49 FLJ21657 3' TATTCTACTTCTCTCTC 1991
                                            AG
                      GAAGAGAAA AGAATA
                      111111111 111111
                      CTTCTCTCTT TCTTAT
                          CA
GAM49
      GT650
             3' TATTTCTGATTCTCCCTCTCTT 2341
                                             AAA
                                                   AA
         С
                       GAAGAGA GAGAAT AAATA
                      11111111 111111 11111
                      CTTCTCTC CTCTTA TTTAT
                         С
                              GTC
GAM49 HEY2
            3' TATTCTCTTTTTTTCTC 1420
                                        AG
                      GA AGAGAAAGAGAATA
                      CT TTTTTTTCTCTTAT
                       CT
GAM49 HIC2
            3' ATTTTTTTTTCTCTCTCTTTTC 2717
                                         Α
                                                Т
                      GAAGAGAA AGAGAA AAAAAT
                      CTTTTCTCT TCTTTT TTTTTA
                          С
             3' ATTTTGAGGACTTTTTCTCTCT 2249
GAM49 HOOK3
                                                AATA
                      AGAGAAAAGAG AAAAT
                      TCTCTCTTTTTC TTTTA
                           AGGAG
GAM49 IL1RAPL1 5' TATTCTTATTTTCCCCTCTCTT 1488
                                              AAA
                                                    Α
         Т
                      GAAGAGA GAGAATAA AATA
                      TTTCTCTC CTTTTATT TTAT
                         CC_{-}
                               C
            3' TTTTGTTCTTGTCCCTCTC 2347
GAM49 KALI
                                         AAA
                      GAGAG GAGAATAAAA
                      CTCTC TTCTTGTTTT
                        CCTG
GAM49 KIAA0077 3' TTTTATTCTCTCTCCCTTT 2773
                                          A AA
                      GAAG GAGA GAGAATAAAA
                      TTTC CTCT CTCTTATTTT
                        С
GAM49 KIAA0089 3' ATTTTTAGCCTCTTTTCTCTC 2873
                                               A AA
```

GAAGAGAAAA GAG TAAAAAT

```
CTTCTCTTTT CTC ATTTTTA
                          _ CG
GAM49 KIAA0286 3' TATTTTCACCCTCTTTTC 2814
                                           AAA
                      GAAGAGAG GAGAATA
                      CTTTTCTC CTTTTAT
                         CCA
GAM49 KIAA0295 3' TTTTTTCCCTTTCTCTCT 2808
                                            A T
                     AGAGAGAAAG GAA AAA
                      TCTCTCTTTC CTT TTT
                          C T
GAM49
     KIAA0342 3' TATTCTCATTACTTCTCTTT 2890
                                            __ A
                     GAAGAGA G AA GAGAATA
                     TTTCTCT C TT CTCTTAT
                        TAA
GAM49 KIAA0564 3' TATTTTTATTTTCTCCCTGCTC 2743
                                           _ AA
                     GAG AG AGAGAATAAAAATA
                      CTC TC TCTTTTATTTTAT
                       G CC
GAM49 KIAA0630 3' TATTTTTTAAAAGTCTTTCTCT 3465
                                              GAAT
         CT
                       AGAGAGAAAGA
                                   AAAAATA
                      TCTCTCTTTCT
                                   TTTTTAT
                          GAAAAT
GAM49 KIAA0662 3' TGTTCTCTCTCTCTTTT 3215
                                            Α
                      GAAGAGAGA AGAGAATA
                      TTTCTCTCT TCTCTTGT
                         C
GAM49 KIAA0830 3' TTTGCTTCTCTTTCTCCT 2866
                                         Α
                     AG GAGAAAGAGAA TAAA
                     TC CTCTTTCTCTT GTTT
                            С
GAM49 KIAA0964 3' ATTCTTATGTTTTTCTCTTTTC 1579
                                               GA A
                      GAAGAGAAAGA ATAA AAT
                      CTTTTCTCTTTTT TATT TTA
                           G_{-} C
GAM49 KIAA1076 3' TATTTTTTGCTTTCTCTC 2723
                                           AGAAT
                      GAGAGAAAG AAAAATA
```

CTCTCTTTC

11111111 11111 111

GAM49 KIAA1181 3' ATTCCTCTTCCTCTTC

 $\mathsf{GT}_{_}$

GAAGAGAG AAGAG AAT

TTTTTAT

```
CTTCTCTC TTCTC TTA
                        C C
GAM49 KIAA1319 3' TATTTTTGTCTTCCTTTC 1925
                                          A GA
                     GAGAG AAGA ATAAAAATA
                     CTTTC TTCT TGTTTTTAT
                       C TC
GAM49 KIAA1522 3' ATTCTCTGACCTTTCTCTCT 2708
                     AGAGAGAA
                              AGAGAAT
                     TCTCTCTT
                              TCTCTTA
                        TCCAG
GAM49
     KIAA1906 3' ATTTTTATTCTCTGCTT
                                 2971
                                       AA
                     GAG AGAGAATAAAAAT
                     TTC TCTCTTATTTTTA
                      G
GAM49 MAPK6 5' TATTTTTCTTCTCCCTTT 952
                                         AG
                     GAAG GAGAA AGAATA
                     TTTC CTCTT TTTTAT
                      C CT
GAM49 MGC13138 3' TATTTTTATTCTTGTGACCCTC 2332
                                           AGAAA
                     GAG GAGAATAAAAATA
                     Ш
                        CTC
                          TTCTTATTTTTAT
                      CCAGTG
GAM49 MGC2742 5' TATTTCTTTTCTCTCTC 2040
                                            AG
                     GAAGAGAAAG AATA
                     CTTCTCTCTTTT TTAT
                          CT
GAM49 MGC32043 3' TATTCCTGTTTTCTCTTT
                                           _ A
                                  2486
                     GAAGAGAAA AG GAATA
                     TTTCTCTTTT TC CTTAT
                         G _
GAM49 NFAT5
            3' TATTCCCTTTTTCTCTTC 2452
                     GAAGAGAAAG GAATA
                     CTTCTCTTTTTC CTTAT
                          С
GAM49 OSBPL8 3' TTTTTATTATCCTCCTCTCTC 1929
                                            AAA G
                     GAAGAGAG GA AATAAAAA
                     CTTCTCTC CT TTATTTTT
                        CTC A
```

3' TGTTCTGCTTTTCCTCCTC 3337

11 111 1111 111111

GA GAG AAAG AGAATA

GAM49 RAB10

A AG _

```
CT CTC TTTC TCTTGT
                      C CT G
GAM49 RANBP1 3' TATTTTCTTTTCCTCTCTTT 969
                      GAAGAGAG AAAGAGAATA
                     TTTCTCTC TTTCTTTTAT
                         CT
                                             AAA_
GAM49 RASSF2 3' TATTTTCACAATCCTCTCTC 1537
                      GAAGAGAG
                                GAGAATA
                      CTTCTCTC
                                CTTTTAT
                         CTAACA
GAM49
      STK22D 3' TATTTTCATCAGCTTCTTCTCT 2226
                                             AG AATA
         CT
                       AGAGAGAA AG
                                    AAAATA
                      TCTCTCTT TC
                                  TTTTTAT
                         CT GACTAC
GAM49 SYNJ2
             3' ATTTTTAGGTTTTCTCTTC 2606
                                            AGAGAA
                      GAAGAGAA
                                  TAAAAAT
                      CTTCTCTTTT
                                  ATTTTTA
                          GG
             3' TATTCTTTTTTCCCTTC
                                  2079
GAM49
     TBLR1
                      GAAG GAGAAAGAGAATA
                      CTTC CTTTTTTTCTTAT
                       C
      TM9SF1
             3' TATTGCTGTTCTCTCCCTTTCT 1296
GAM49
                                             AA
                                                   AA
         TC
                       GAAGAGA AGAGAATA AATA
                      CTTCTTTC TCTCTTGT TTAT
                         CC
                              CG
GAM49 ULK2
            3' TATTCTATCCTCTCCTCTTC 1523
                                           AAG
                      GAAGAG AGA AGAATA
                      CTTCTC TCT TCTTAT
                        C CCTA
             3' TTATTCTTTCTTCCTCTTC 2393
GAM49 UNC5D
                      GAAGAG GAA AGAGAATAA
                      111111 111 111111111
                      CTTCTC CTT TTTCTTATT
                        _ C
GAM49 LOC121219 5' TTATTAACTCCTTCTCTTT 2988
                                              Α ___
                      GAAGAGAA GAG AATAA
                      TTTCTCTCTT CTC TTATT
                          C AA
GAM49 LOC128077 3' ATTTGTTTTCTCTTTCCT 3006
                                           Α
                                                  TAA
         С
                      GA GAGAGAAAGAGAA AAAT
```

```
CT CTTTCTTTCTCTT TTTA
                       С
                             TTG
GAM49 LOC143451 3' TTCTCTCCTTCTCTCTC 3058
                      GAAGAGAA AGAGAA
                      CTTCTCTCTT TCTCTT
                          CC
GAM49 LOC145125 3' TTCTCTCCTTCTCTCTC
                                     3075
                      GAAGAGAA AGAGAA
                      111111111 111111
                      CTTCTCTCTT TCTCTT
                          CC
GAM49
     LOC149351 3' ATTTTTCAGATCTTTCTCTTT 3131
                                                GAAT
                      AGAGAGAAAGA AAAAAT
                      TTTCTCTTTCT TTTTTA
                           AGAC
GAM49 LOC149722 5' TATTCTTTCTTTCTCTTC
                                    3312
                                             Α
                      GAAGAGAGA AGAGAATA
                      CTTCTCTTT TTTCTTAT
                          С
GAM49 LOC149837 5' TATTCCTGTCTTTCTCTCT 3318
                      AGAGAGAAGA GAATA
                      TCTCTCTTTCT CTTAT
                           GTC
GAM49 LOC150054 3' TATTCTGTCTTTCTCCTC 3323
                      GAG AGAAAGA GAATA
                      CTC TCTTTCT CTTAT
                       С
                           GT
GAM49 LOC150150 5' TTTTGTGCCTCTCTTTCTTC 3324
                                               AA A
                      GAAGAGAGA GAG ATAAAA
                      CTTCTTTCT CTC TGTTTT
                          __ CG
GAM49 LOC150225 3' TATTTTGTTTCCCTCTTC 3327
                                            A G
                      GAAGAG GAAA AGAATA
                      111111 1111 111111
                      CTTCTC CTTT TTTTAT
                         C G
GAM49 LOC152816 3' TATTTTTATCCTCAACCTCTT 3364
                                             AAA A
                      GAGAG GAG ATAAAAATA
                      TTCTC CTC TATTTTTAT
                        CAA C
GAM49 LOC155038 3' ATTGCGTTTCTCTTTCTCCTTC 3198
                                              Α
                                                    TAAA
                      GAAG GAGAAAGAGAA AAT
```

```
CTTC CTCTTTCTCTT TTA
                           TGCG
GAM49 LOC158629 3' TATTTTCTTTCCCTCTC
                                  3394
                                        A A
                     GA GAG GAAAGAGAATA
                     CT CTC CTTTCTTTAT
GAM49 LOC158943 3' TATTTTCTTTTCCTCTCTTT 2572
                     GAAGAGAG AAAGAGAATA
                     TTTCTCTC TTTCTTTTAT
                        CT
GAM49 LOC170082 3' ATTCTTTTCCCCTCTCTTTTC 3254
                     GAAGAGAGA AAGAGAAT
                     CTTTTCTCT TTTTCTTA
                        CCCC
GAM49 LOC199920 5' TATTTTTATTCTTTGATTCTTC 3436
                                           AGAA
                     GAAGAG AGAGAATAAAAATA
                     CTTCTT TTTCTTATTTTAT
                       AG__
GAM49 LOC219667 3' ATTTTTGTTATCTCTCTC 3516
                                           AAGAG
                     GAAGAGAGA AATAAAAAT
                     CTTCTCTCT TTGTTTTTA
                        Α
      LOC220279 5' TATTTTCTTCCCCTACCTCTCT 3653
GAM49
                                             Α
         TC
                      GAAGAGAG
                                 AAGAGAATA
                          TTCTTTTAT
                     CTTCTCTC
                        CATCCCC
GAM49 LOC221830 3' TATTTTCTTTCTTC 3567
                     GAAGAGAAA GAGAATA
                     CTTCTTTCTTT CTTTTAT
                         Т
GAM49 LOC222166 3' ATTTTACCTTCTCTTT 3635
                                           AG_
                     GAAGAGAAA AGAAT
                     TTTCTCTCTT TTTTA
                         CCA
GAM49 LOC254440 3' TTCTCTCCTTCTCTCTC 3729
                     GAAGAGAA AGAGAA
                     CTTCTCTCTT TCTCTT
                         CC
GAM49 LOC51123 3' ATTTTTATGCTGTTCCCTCTT 2571
                                           A AG A
```

AAGAG GAA AG ATAAAAAT

```
TTCTC CTT TC TATTTTTA
                       C G_G
GAM49 LOC51596 5' TATTTTCCAAGTTTCTCTCT 1651
                                          Α
                     GA GAGAGAAA GAGAATA
                     CT CTCTCTTT CTTTTAT
                          GAAC
GAM49 LOC84570 5' TTTCGTTTTCCTCTCTCTC 2257
                                            AA TA
                     GAAGAGAGA GAGAA AAA
                     11111111 1111 111
                     CTTCTCTCT CTTTT TTT
                        C GC
GAM49 LOC92710 5' TATTTTTATGCCTCTGTCTC 2885
                     GAGA AGAG ATAAAAATA
                     CTCT TCTC TATTTTTAT
                      G CG
GAM50 FANCF 3' GTCCCTTTAAAGCATTGA 1997
                                            ATATAT
                     TCAATGTTTTAAA GGAC
                     Ш
                     AGTTACGAAATTT
                                    CCTG
                          C___
GAM50 GPR65 5' TCCACCCTTTAAAAGCATTGA 2544
                                            A TATA
                     TCAATGTTTT AAA TGGA
                     AGTTACGAAA TTT ACCT
                         A CCC
GAM50 LMNB1 3' TGTCCATACACTTTGTTGCA 1226
                                         TT ATA
                     TGT TAAA TATGGACA
                     ACG GTTT ATACCTGT
                      TT CAC
GAM50 MEN1
            5' CATAATATTTTAAAACATT 3600
                     AATGTTTTAAAATAT ATG
                     TTACAAAATTTTATA TAC
                           Α
GAM50 PLAG1 3' TGTCCATATACCAGATTTAAAA 944
         TATT
                       AATGTTTTAAA TATATGGACA
                     TTATAAAATTT ATATACCTGT
                         AGACC
GAM50 S100A11 3' TGTCACTTTTTTAAAACATGA 1231 A
                                              TATATG
                     TCA TGTTTTAAAA
                                    GACA
                     Ш
                     AGT ACAAAATTTT
                                    CTGT
                           TTCA__
GAM50 SLC9A6 3' TCCAGTTAGAACATTGA 1290
                                           AATATA
                     TCAATGTTTTAA TGGA
```

```
AGTTACAAGATT
                                    ACCT
                           G
                                           T TA _
            3' TCCATATACTTTGGGGACTTG 766
GAM50 SOD2
                      CAA GTTT AAA TATATGGA
                      GTT CAGG TTT ATATACCT
                       _ GG C
GAM50 BIRC2 5' TATATTTTTAAAACATTGA 2784
                                             Т
                      TCAATGTTTTAAAA ATATG
                      AGTTACAAAATTTT TATAT
GAM50 CXorf1 5' TGTCCATAGAAAAAATATT 1145
                                           AAAATA
                      AATGTTTT
                                TATGGACA
                      TTATAAAA
                                ATACCTGT
                         AAG
GAM50 KIAA0367 3' TGTCCCACAATGCCTAAAACAT 2787
                                                AAATATAT
         TGA
                        TCAATGTTTTA
                                      GGACA
                      AGTTACAAAAT
                                    CCTGT
                          CCGTAACAC
GAM50 KIAA1321 3' TCCTTGAGCTTTAAAGCATTGA 2627
                                                 ATATAT
                      TCAATGTTTTAAA
                                     GGA
                      AGTTACGAAATTT
                                     CCT
                           CGAGTT
GAM50 KIAA1718 3' TGTATTTTAAAATATTGA 2686
                      TCAATGTTTTAAAATATA
                      AGTTATAAAATTTTATGT
GAM50 KIAA1789 5' TGTCCCTGCCCTAGAAACATTG 2781
                                                AAAATATAT
         Α
                      TCAATGTTTT
                                    GGACA
                      11111
                      AGTTACAAAG
                                    CCTGT
                          ATCCCGTC
GAM50 PRO2964 3' CAAGTATTTTAAAACACTG 1842
                                                 Α
                      CA TGTTTTAAAATAT TG
                      11 11111111111111111111
                      GT ACAAAATTTTATG AC
                             Α
GAM50 SLC17A6 3' TGTCCATACACAGAAACAT 1912
                                             AAAATA
                      ATGTTTT
                               TATGGACA
                      TACAAAG
                               ATACCTGT
                         ACAC_
GAM50 TRAF3
             5' CATTTTATTTTAAAACGTTGA 2542
                                                T_
                      TCAATGTTTTAAAATA ATG
```

```
AGTTGCAAAATTTTAT TAC
```

TT

GAM50 LOC151361 3' TGTCTGTGTTTTTAAAAC 3344 T

GTTTTAAAA ATATGGACA

CAAAATTTT TGTGTCTGT

GAM50 LOC158714 3' TCCACACATTTAAAACATTGA 3224 ATATA

TCAATGTTTTAAA TGGA

AGTTACAAAATTT ACCT

ACAC

GAM50 LOC219667 3' TATACCTTAGAACATTGA 3518 AA

TCAATGTTTTAA TATA

AGTTACAAGATT ATAT

CC

GAM50 LOC91565 3' TCCATTTTAAAACATT 2749 ATAT

AATGTTTTAAA ATGGA

TTACAAAATTT TACCT

GAM51 C1orf1 5' TATGCTGACAGAAGAACCA 809 CC A A

TGGTTCTTT GT CA CATA

ACCAAGAAG CA GT GTAT

A_ _ C

GAM51 LRAT 3' AGTATGCATACATAAAAGCAAC 2556 _ CC_ CAA

CA TGGTT CTTT GTA CATACT

ACCAA GAAA CAT GTATGA

C ATA AC_

GAM51 MYBL1 3' AGTATGTTATACAAATGCCA 2679 TCTTTCC C

TGGT GTA AACATACT

ACCG CAT TTGTATGA

TAAA___ A

GAM51 KIAA1028 3' TATGTCTGCATTGAAAAGAACC 3547 C TA_ _

A TGGTTCTTT CG CA ACATA

ACCAAGAAA GT GT TGTAT

A TAC C

GAM51 MGC2488 3' TGTAGTGGAAAGAAGCAT 2045 G

ATG TTCTTTCCG TACA

TAC AAGAAAGGT ATGT

G G

GAM52 CX3CR1 3' ACTGCCTACTGCATCGAGTCA 2891 TCCCTTAA

TGACTCG TAGGCAGT

```
ACTGAGC
                            ATCCGTCA
                      TACGTC
GAM52 WNT14 3' CTGCAAGGGACGAGTC
                                        AATAG
                                1014
                    GACTCGTCCCTT GCAG
                    CTGAGCAGGGAA CGTC
GAM52 FLJ20275 3' TACTGCCTTCATAAGATCAAGT 1745
                                         CGTCC AT_
        CA
                     TGACT CTTA AGGCAGTA
                    ACTGA GAAT TCCGTCAT
                      ACTA_ ACT
GAM52 FLJ22390 5' TACTGCCTATCAAACG
                                2002
                                     CCC A
                    CGT TT ATAGGCAGTA
                    GCA AA TATCCGTCAT
                     ___ C
GAM53 LOC120864 5' CAAGGTCCAAACTGATATAA 2986
                                           CGTAG
                    TTGTATCAGTTT TCTTG
                    AATATAGTCAAA GGAAC
                        CCT
GAM54 KIAA0626 3' AACATCAGGGTGCAGAATTGAT 1954
                                           C_ A_
                    ATCGATTC CAT TGATGTT
                    TAGTTAAG GTG ACTACAA
                       AC GG
GAM54 KIAA1239 3' AACATCATGATTATTGATG 2914
                                        TCCCA
                    CATCGAT TATGATGTT
                    GTAGTTA GTACTACAA
                      TTA
GAM54 LOC201475 5' AACATCATATATTTTGATGTTA 3428
                                          TTCCC
                    TAACATCGA ATATGATGTT
                    ATTGTAGTT TATACTACAA
                       TTA__
GAM55 ARCN1 3' CCCATTTCCTTCCAGTCA 844
                                        GAAGT
                                              CA
                    TGATTGGA AGGAAA GG
                    ACTGACCT TCCTTT CC
                             AC
GAM55 CTSK
           3' TCCTACTTTGCTTCTCCACC 736 AT
        CA
                     TG TGGAGA
                                AGTAGGA
                    TCATCCT
                    AC ACCTCT
                     CC
                         CTTCGTT
GAM55 HMG20A 3' TCCTATTTCCCTGCCATCA 1800
                                       T___ A
                    TGAT GG GAAGTAGGA
```

```
ACTA CC CTTTATCCT
                      CCGT _
GAM55 PRDM2 3' TCCTGTTTCCCACCCAG 1415 AGAA A
                     TTGG GT GGAAACAGGA
                     GACC CA CCTTTGTCCT
                        ___ C
GAM55 RNMT
            3' CCTGCCTATCCTCTCCGATCA 1060
                                         A_ AAA
                     TGATTGGAGA GTAGG CAGG
                     ACTAGCCTCT TATCC GTCC
                         CC
GAM55 SCAP1 3' TCCCACTCCCTACTTCTGCCA 1052
                                              AAACA
                     TGG AGAAGTAGG GGA
                     ACC TCTTCATCC CCT
                      G
                           CTCAC
GAM55 USH3A 5' CCTATTTTATTTCTCCATCA 2355 T
                                              AAC
                     TGAT GGAGAAGTAGGA AGG
                     ACTA CCTCTTTATTTT TCC
                           Α___
GAM55 VAT1
            3' TCCTGTTTCCCACCTCCTTCTC 1292
                                           TA___
                      GGAGAAG GGAAACAGGA
        С
                     CCTCTTC CCTTTGTCCT
                        CTCCAC
GAM55 AIF1 5' CCTGCTGAAAACCCTCCAGTCA 2297
                                            Α
                     TGATTGGAG AGTAGG
                     ACTGACCTC
                                TCGTCC
                        CCAAAAG
GAM55 CPLX1 3' CCTGTTTCTCCTCCATTCA 1317 T AAGTA
                     TGA TGGAG GGAAACAGG
                     ACT ACCTC TCTTTGTCC
                      T C___
GAM55 CXYorf1 3' CCTGTTCCCCACCTCCCGGCTC 3228 _ A A A A
                     GA TTGG GA GT GG AACAGG
                     11 1111 11 11 11 11111
                     CT GGCC CT CA CC TTGTCC
                      \mathsf{C} - \mathsf{C} \mathsf{C} \mathsf{C}
GAM55 FLJ12221 3' CCCACCCTTGCTCTCCAATTA 2637
                                            A AAACA
                     TGATTGGAGA GTAGG GG
                     ATTAACCTCT CGTTC CC
                         CCAC_
GAM55 FLJ20207 3' CCTGCCCTGCTTCCCCACCCA 1741
                                          AT A
                                                 AAA
                     TG TGG GAAGTAGG CAGG
```

```
AC ACC CTTCGTCC GTCC
                     CC C
                            C__
GAM55 FLJ22215 3' CCTGCCCCCTACCCTGTTCTCC 3715
                                                AAA
                    GGAGAA GTAGG CAGG
                    CCTCTT CATCC GTCC
                       GTCC CCC
GAM55 FLJ31547 3' TCCCATAATTTCTCCCGCAATC 2511
                     TGATT GGAGAAGT GGA
                    ACTAA CCTCTTTA CCT
                      CGC
                            ATAC
GAM55 HSCBCIP1 3' TCCTACCTATGTCTTCTCCAAT 3449
                                              _ AAAC
                    ATTGGAGAAG TAGG AGGA
                    TAACCTCTTC ATCC TCCT
                        TGT A
GAM55 KIAA0515 5' TCCTACCAGAACTCCTCCGATC 2670
                                            A A_ AAAC
                     TGATTGGAG AGT GG AGGA
        Α
                    ACTAGCCTC TCA CC TCCT
                        C AGA A
GAM55 KIAA1514 3' CCTGCTCAACTTCTCCA
                                1877
                                         A AAA
                    TGGAGAAGT GG CAGG
                    ACCTCTTCA CT GTCC
                        A C
GAM55 KIAA1553 3' TCCTCACTTCTCCATCCA 3544
                                       ΑT
                    TG TGGAGAAGT AGGA
                    AC ACCTCTTCA TCCT
                     CT
                          С
GAM55 KIAA1656 3' CCCACTTCCTTCCAGTCA 2730
                                            Α
                    TGATTGGA GAAGT GG
                    ACTGACCT CTTCA CC
                       TC C
GAM55 KIAA1877 3' CCTACCTTATTTCTCCAGCCA 2741
                                               AAAC
                                        ΑT
                    TG TGGAGAAGTAGG AGG
                    AC ACCTCTTTATTC TCC
                     CG
                            CA
GAM55 MTCH1 3' CCCGTCTACCCCTCCAGTCA 1493
                                           AA AAACA
                    TGATTGGAG GTAGG GG
                    ACTGACCTC CATCT CC
                        CC GC_
GAM55 N-PAC
            3' CCGCCCTCACCCCTCCAATC 2902
                                          AA _ AAACA
                    GATTGGAG GT AGG GG
```

```
CTAACCTC CA TCC CC
                        CC C CG
GAM55 SEMA4B 5' CCTGTTTCCCACCTCC
                                2839
                                        AA A
                     GGAG GT GGAAACAGG
                     CCTC CA CCTTTGTCC
                       __ c
                                          TA_
GAM55 SPRY1 3' CCTGTTTCCCACCTTCTCT 2709
                     GGAGAAG GGAAACAGG
                     TCTCTTC CCTTTGTCC
                        CAC
GAM55 WS-3
            5' CCTGCCAGGCTCTCCAATC 1312
                                           A A_A AAA
                     GATTGGAGA GT GG CAGG
                     CTAACCTCT CG CC GTCC
                         GA
GAM55 LOC123242 5' TCTGTACCTTCTCCATCCA 3030 AT TAGGAA
                     TG TGGAGAAG ACAGG
                     AC ACCTCTTC TGTCT
                      CT
                           CA
GAM55 LOC127702 3' CCTGCCCACAACTTCTCCAAAC 3024 A
                                                 A__ AAA
                     TG TTGGAGAAGT GG CAGG
                     AC AACCTCTTCA CC GTCC
                           ACA C
GAM55 LOC146745 5' TCCTGCCACCATTTCTCCAACC 3099 A
                                                 A AAA
                     TG TTGGAGAAGT GG CAGGA
         Α
                     AC AACCTCTTTA CC GTCCT
                      С
                           _ ACC
                                             AAG A CA
GAM55 LOC147791 3' CCCATTCCCTAACCTCCAATC 3294
                     GATTGGAG TAGG AA GG
                     CTAACCTC ATCC TT CC
                        CA_ C AC
GAM55 LOC196892 3' TCCTGGTGATTCTTCTCCAATC 3417
                                              TAGGAAA
                      TGATTGGAGAAG CAGGA
                     ACTAACCTCTTC
                                   GTCCT
                          TTAGTG
GAM55 LOC200093 3' CCTGTTCCCCACCTCCCGGCTC 2648
                                            _{-} AAAA
                     GA TTGG GA GT GG AACAGG
                     CT GGCC CT CA CC TTGTCC
                      \mathsf{C} - \mathsf{C} \mathsf{C} \mathsf{C}
GAM55 LOC201243 5' TCCTGCCACCATTTCTCCAACC 3426
                                          Α
                                                 A AAA
                     TG TTGGAGAAGT GG CAGGA
         Α
```

```
AC AACCTCTTTA CC GTCCT
                      C _ ACC
GAM55 LOC219404 3' CCTGCTCCCTACTTCCTGGCA 3606 A TG A
                                                    AAA
                     TG T G GAAGTAGG CAGG
                     AC G C CTTCATCC GTCC
                      _GT_ CTC
GAM55 LOC222066 3' TCCTGCAAACCACCTTCTCCAA 3574
                                                TA AAA
                       TGATTGGAGAAG GG CAGGA
         TCA
                     ACTAACCTCTTC CC GTCCT
                          CA AAAC
GAM55 LOC253001 5' TCTGTACCTTCTCCATCCA 3698 AT
                                               TAGGAA
                     TG TGGAGAAG ACAGG
                     AC ACCTCTTC
                                  TGTCT
                      CT
                           CA
GAM55 LOC91040 3' CCTGTTCCCCACCTCCCGGCTC 2700 _ A A A A
                     GA TTGG GA GT GG AACAGG
                     CT GGCC CT CA CC TTGTCC
                      \mathsf{C} \mathsf{C} \mathsf{C} \mathsf{C}
GAM56 GCNT2 5' TCTCGGGATGAAACGGAATCGA 831
                                                 Α
                     TCGATTCCGT CC AGA
                     AGCTAAGGCA
                                  GG TCT
                         AAGTAG C
GAM56 BLP1
            3' TTACCTTGCAGACGGAATGA 2222 G
                                              __ A
                     TC ATTCCGTC CAAG TGA
                     AG TAAGGCAG GTTC ATT
                          AC C
            3' TTACCTTGCAGACGGAATGA 2371
GAM56 BLP1
                                               Α
                     TC ATTCCGTC CAAG TGA
                     AG TAAGGCAG GTTC ATT
                          AC C
GAM56 LOC143914 5' TCACTCAAACGGAATCGA 3062
                                             CCA A
                     TCGATTCCGT AG TGA
                     AGCTAAGGCA TC ACT
                         AAC _
GAM56 LOC253891 5' CACTGGGACGGAATCGG 3654
                                              A A
                     TCGATTCCGTCC AG TG
                     GGCTAAGGCAGG TC AC
                          \mathsf{G}_{-}
GAM57 ADSS
            3' GAAACAAATGATGAAAACAT 2925
                                          CCTGTT
                     ATGT TCATTTGTTTC
```

```
TACA
                         AGTAAACAAAG
                      AAAGT_
                                        G TTTCA
GAM57 CASP6 3' GAAACAAAATCCTCAGGAAATT 2305
        Α
                     TAAT TCCTG TTTGTTTC
                    ATTA AGGAC
                               AAACAAAG
                      A TCCTA
GAM57 CASP6
            3' GAAACAAAATCCTCAGGAAATT 810
                                         G TTTCA
                     TAAT TCCTG TTTGTTTC
        Α
                    ATTA AGGAC AAACAAAG
                      A TCCTA
GAM57 CKTSF1B1 3' AAGTGGATAAACAGAACATT 1445
                                              C TG
                    AATGT CTGTTT ATT TTT
                    TTACA GACAAA TAG GAA
                      A GT
GAM57 F2R
           3' AAACAATGCAGTACAGGACAT 879
                                          TTCAT
                    ATGTCCTGT TTGTTT
                    TACAGGACA
                               AACAAA
                        TGACGT
GAM57 GPRK7
            3' GGAAACAAATGTTTCTGACATT 2476
                                           CTGTTT
                    AATGTC CATTTGTTTCC
                    TTACAG GTAAACAAAGG
                       TCTTT
GAM57 NLGN1 3' AAACAAATGAGATGGAC 1591
                                       Т
                    GTCC GTTTCATTTGTTT
                    CAGG TAGAGTAAACAAA
                                           T TTT
GAM57 APC10 5' GGAAACTGTAACAGGACATT 1574
                    AATGTCCTGTT CA GTTTCC
                    TTACAGGACAA GT CAAAGG
                         T __
GAM57 C20orf139 3' GGAACAAAAACAGGACATTA 3319
                                             CAT
                    TAATGTCCTGTTT TTGTTTC
                     ATTACAGGACAAA AACAAGG
GAM57 FLJ11186 3' GAAGCCCGAAACAAGACATTA 1818
                                           C
                                              ATTT
                    TAATGTC TGTTTC GTTTC
                    ATTACAG ACAAAG CGAAG
                          CC_{-}
GAM57 FLJ22116 5' GGAATTGCGGAAAACAGGAC 2073
                                            CA
                    GTCCTGTTT TTTGT TTCC
```

```
CAGGACAAA AGGCG AAGG
                            TT
GAM57 FLJ32978 3' AAACAAATGAAATCAACA 2487
                                        CCT
                     TGT GTTTCATTTGTTT
                     ACA TAAAGTAAACAAA
                      AC
GAM57 KIAA1164 3' GGAAACAAAACAAAACAAAAC 2862
                                          CC CA_
                     GT TGTTT TTTGTTTCC
                     CA ACAAA AAACAAAGG
                     AA ACA
GAM57 KIAA1762 3' AAAGAGAGAAACGGACA 2668
                                         T A G
                     TGTCC GTTTC TTT TTT
                     ACAGG CAAAG AGA AAA
                       G
GAM57 KIAA1918 5' GAAAGGAGACAGAACATTA 2969
                                         C ATTTG
                     TAATGT CTGTTTC TTTC
                     ATTACA GACAGAG AAAG
                       Α
                          G___
GAM57 POPX1 3' GGAAACAAACTTCAGGTCA 1583
                                        T TTTCA
                     TG CCTG TTTGTTTCC
                     AC GGAC AAACAAAGG
                     T TTC
GAM57 PRO0800 3' AAACAAAGAGACAGGAATTA 1852
                                          G
                                               Α
                     TAAT TCCTGTTTC TTTGTTT
                     ATTA AGGACAGAG AAACAAA
GAM57 LOC142779 3' GGAGTAACAAAATAGGACATTA 3050
                                               CATT _
                     TAATGTCCTGTTT TGTT TCC
                     1111111111111 1111 1111
                     ATTACAGGATAAA ACAA AGG
                           ___ TG
GAM57 LOC143274 5' GGAAACAAACAAAAGGA 3053
                                          G CA
                     TCCT TTT TTTGTTTCC
                     AGGA AAA AAACAAAGG
                      _ AC
GAM57 LOC154089 3' AAACAAATACTGAGACAG 3186
                     CTGTTTCA TTTGTTT
                     GACAGAGT AAACAAA
                        CAT
```

GAM57 LOC169679 3' AGCATATGAAGACAGGACAT 3404

ATGTCCTGTTT CAT TGTT

_ T

```
TACAGGACAGA GTA ACGA
                         A T
GAM57 LOC202052 5' GAAACAAATACCCAGAAGACA 3484
                                           TTTC
                    TGTC CTG ATTTGTTTC
                    ACAG GAC TAAACAAAG
                      AA CCA
GAM57 LOC256021 3' GAAACGAGAACAATGACATTA 3708
                                            C_ CAT
                    TAATGTC TGTTT TTGTTTC
                    ATTACAG ACAAG AGCAAAG
                       TΑ
GAM57 LOC91650 5' AAACAAAACATCTCAGGACAT 2765
                                            TTTCA
                    ATGTCCTG
                              TTTGTTT
                    TACAGGAC
                              AAACAAA
                       TCTACA
GAM57 LOC91752 5' AAGTCAAATAAAACAGGACA 2777
                                            С
                    TGTCCTGTTT ATTTG TTT
                    ACAGGACAAA TAAAC GAA
                        A T
GAM58 DRD1
            3' ATTAACTCCGTTTCCAAATACA 774
                                         GCTCCT
                    TGTAT
                           AGCGGAGTTAAT
                        TTGCCTCAATTA
                    ACATA
                      AACCT
GAM58 KIAA0182 3' AAGTCCTAGGAGCACACA 2931
                                            GC G
                    TGT TGCTCCTA GGA TT
                    ACA ACGAGGAT CCT AA
                          G
                     С
                                         AGC A
GAM58 SSH2
            3' AGCCCCAGGAGCATACA
                                2626
                    TGTATGCTCCT GG GTT
                    ACATACGAGGA CC CGA
                         C__ _
GAM58 LOC90918 5' ATTAAATCCAGGAACATATA 2687
                                          C AGC G
                    TGTATG TCCT GGA TTAAT
                    ATATAC AGGA CCT AATTA
                       Α ___ Α
                                          TCTC_
GAM59 EHHADH 3' TATGAATCATACACTC 877
```

GAM59 ADAM9 3' TATGAATGAAAACAAAACACC 1063 A C___ GGTGT TT TCATTCATA ||||| || |||||||

CTCACATA

CATAC

GGGTGTAT ATTCATA

TAAGTAT

```
CCACA AA AGTAAGTAT
                       A CAAA
GAM59 BCAR3 3' ATGAATGAAAATACATCT 1036
                                          С
                     GGGTGTATT TCATTCAT
                     TCTACATAA AGTAAGTA
                        Α
GAM59 XAP135 5' AATGGCCACCTGATGA
                                 1809
                                          TATTC
                     TCATCGGGTG TCATT
                     AGTAGTCCAC
                                GGTAA
GAM59 XAP135 5' AATGGCCACCTGATGA
                                 2408
                                          TATTC
                     TCATCGGGTG
                                TCATT
                     AGTAGTCCAC
                                GGTAA
                         С
GAM59 LOC252983 5' ATGAATAAAAATACATCTACTG 3668
                                          TC
                                                CTC
                     CA GGGTGTATT ATTCAT
                     GT TCTACATAA TAAGTA
                      CA
                           AAA
GAM60 MGC5242 5' CCTTACAATCCGAGACTA 2042
                     TGGTCTCGGATT AGG
                     ATCAGAGCCTAA TCC
                         CAT
GAM60 LOC197259 3' GCCAATCAAGACCAGAA
                                  3422
                                           CG A
                     TTCTGGTCT GATT GGC
                     AAGACCAGA CTAA CCG
GAM61 DKFZP564I052 3' ATGGATGAAGATGACCGAT 2759
                                              A ATA
                     ATCG TCAT ATCT TCATCCAT
                     TAGC AGTA TAGA AGTAGGTA
                      C G
GAM61 KIAA0825 3' ATGGACAATACTATTGGTCGAT 2588
                                            TATCTA CA
                     ATCGATCA
                              TAT TCCAT
                          TAGCTGGT ATA AGGTA
                        TATC__ AC
                                         C TC
GAM61 KIAA0976 3' ATGATGTATATTATCGAT 1588
                     ATCGAT ATA TATATCAT
                     TAGCTA TAT ATGTAGTA
                       Т
GAM61
      PLAC3
            3' ATGGAAGGGGAAATATGATAGA 2853
                                          G
                                              CTATA A
        Т
                     ATC ATCATAT TC TCCAT
```

```
TAG TAGTATA GG AGGTA
                          AAGG_ A
                      Α
GAM61 LOC147991 5' ATGTATATAGATATGATC
                                   3115
                     GATCATATCTATAT CAT
                     CTAGTATAGATATA GTA
                          Т
GAM62 HDAC7A 3' CTCTGGCAAAGTCTTCAA 1628
                                           CTT
                     TTGAAGACT CCAGAG
                     AACTTCTGA GGTCTC
                        AAC
GAM62 HDAC7A 3' CTCTGGCAAAGTCTTCAA 1700
                                           CTT
                     TTGAAGACT CCAGAG
                     AACTTCTGA GGTCTC
                        AAC
GAM62 LTBP1 3' TCTCAAATGAAAAAGTCTTCGA 764
                                           C C ___
                     TTGAAGACT TT CA GAGA
                     AGCTTCTGA AA GT CTCT
                        A A AAA
GAM62 PDGFB
             3' CTGGGAGAAGGTCTCCAA 941
                     TTG AGAC TCTTCCAG
                     AAC TCTG AGAGGGTC
                      C GA
GAM62 PRDM4
             3' CTTACAGAAGAGTCTCTAA 1427
                                         Α
                                             CA
                     TTG AGACTCTTC GAG
                     AAT TCTGAGAAG TTC
                      С
                          ACA
                                       A C
GAM62 SIRT6
           3' TTCTGGAAAAGTCCTCAA 1695
                     TTGA GACT TTCCAGAG
                     AACT CTGA AAGGTCTT
                      C A
GAM62 XYLB
            3' TCTCTGGAAGAATTTCCAA 1187
                                       A C
                     TTG AGA TCTTCCAGAGA
                     AAC TTT AGAAGGTCTCT
                      CA
GAM62 DKFZP434N093 3' TGTAAACAGAAGGTCTTCAA 3147
                                               T CAGAG
                     TTGAAGAC CTTC ACG
                     AACTTCTG GAAG
                                   TGT
                        _ ACAAA
GAM62 DKFZP547E1010 5' TTTCCAGAAGGGTCTCCAA 2768
                                                  CA
                     TTG AGACTCTTC GAGA
```

```
AAC TCTGGGAAG CTTT
                      С
                          AC
GAM62 DKFZP547E1010 5' TTTCCAGAAGGGTCTCCAA 1640
                                             Α
                                                  CA
                     TTG AGACTCTTC GAGA
                     AAC TCTGGGAAG CTTT
                      C
                          AC
GAM62 FLJ13942 3' TTGAGATGGAAGAGTCTTTAA 2067
                                              GAGA
                     TTGAAGACTCTTCCA CGA
                     AATTTCTGAGAAGGT GTT
                           AGA
GAM62 FLJ14596 3' TCATCTGGGAGTCCCCAA 2282
                                            TT
                                        AA
                     TTG GACTC CCAGA GA
                     AAC CTGAG GGTCT CT
                      CC
                          Α
GAM62 HRLP5 3' TTCTGGAAGAATCTACAA 2364
                                       A C
                     TTG AGA TCTTCCAGAG
                     AAC TCT AGAAGGTCTT
                      A A
GAM62 KCNS1
            3' CGTTGGAAGAGTCTT
                                917
                                         GAG
                     AAGACTCTTCCA ACG
                     TTCTGAGAAGGT TGC
GAM62 KIAA0992 5' TCTCTGGAGTCTTCAA 1662
                                         TCT
                     TTGAAGAC TCCAGAGA
                     AACTTCTG AGGTCTCT
GAM62 KIAA1975 5' TATCATCTCTGGAAGTTGAGAG 2982 A
                                                   C III
        CCTCCAA
                         G CTCT TCCAGAGA GAT A
                     C GAGA AGGTCTCT CTA T
                               A III
                     C GTTGA
GAM62 MGC5590 3' TCTCAGAAAGTCTTCAA 2049
                                          C CA
                     TTGAAGACT TTC GAGA
                     AACTTCTGA AAG CTCT
                        _ A_
GAM62 SIAT8C 5' TCTTGGAAGAATCTCAA
                               1648
                                       A C
                                             G
                     TTGA GA TCTTCCA AGA
                     AACT CT AGAAGGT TCT
                      _ A
GAM62 LOC149706 3' ATCACCTCTGGAGCCCTTTCA 3313
                                           ACTC
                                                   AC
```

TGAAG TTCCAGAG GAT

```
ACTTT GAGGTCTC CTA
                       CCC_
                              CA
GAM62 LOC160292 3' CTCTGGAAAGCCTTCAA
                                          A C
                                   3399
                     TTGAAG CT TTCCAGAG
                     AACTTC GA AAGGTCTC
                       C _
GAM62 LOC203378 3' GTTTCTAAAGAGTCTTCAA 3491
                                             CC
                     TTGAAGACTCTT AGAGAC
                     AACTTCTGAGAA TCTTTG
                         Α
GAM62 LOC204200 5' CTCTGGAAAGGTCTCCAA 3493
                                         A TC
                     TTG AGAC TTCCAGAG
                     AAC TCTG AAGGTCTC
                      C GA
GAM62 LOC255265 5' CGTACGGAAAAGTCTTCA 3672
                                          C AGAG
                     TGAAGACT TTCC ACG
                     ACTTCTGA AAGG TGC
                        A CA
GAM63 FLJ10737 3' AGATGTTTTTATTTTATATTAT 1797
                                             TCCCA
        TA
                     TAATAATATAAAAT ATCT
                     TAGA
                     ATTATTATTTTA
                          TTTTTG
GAM64 COX15 3' AACAGTCCCAGAATGACCCCA 1104
                                          C AAATC T
                     TGGGGTTA TCT GCT GTT
                     ACCCCAGT AGA TGA CAA
                        A CCC__ _
GAM64 SH2D1A 3' AACAAGCCTCCTTTTAAAGTAA 920
                                            C TC
        CCCTA
                       TGGGGTTACT TAAA GCTTGTT
                     ATCCCAATGA ATTT CGAACAA
                        A TCCTC
GAM64 FLJ12994 3' ACAAGCAAATGTAACTCCA 2017
                                           TCTAAATC
                     TGGGGTTAC
                                 GCTTGT
                     ACCTCAATG
                                 CGAACA
                        TAAA
GAM64 FLJ12994 3' ACAAGCAAATGTAACTCCA 3081
                                           TCTAAATC
                     TGGGGTTAC
                                 GCTTGT
                     ACCTCAATG
                                 CGAACA
                        \mathsf{TAAA}_{-}
GAM65 FGFR2 3' ACCCTGTCATTACGTCAACGC 712
                     GCGT GGC AATGACAGGGT
```

```
CGCA CTG TTACTGTCCCA
                       A CA
GAM65 FGFR2 3' ACCCTGTCATTACGTCAACGC 2023
                     GCGT GGC AATGACAGGGT
                     CGCA CTG TTACTGTCCCA
                       A CA
GAM65 FGFR2
             3' ACCCTGTCATTACGTCAACGC 2024
                     GCGT GGC AATGACAGGGT
                     CGCA CTG TTACTGTCCCA
                       A CA
GAM65 FGFR2
             3' ACCCTGTCATTACGTCAACGC 2026
                     GCGT GGC AATGACAGGGT
                     CGCA CTG TTACTGTCCCA
                       A CA
GAM65 FGFR2
            3' ACCCTGTCATTACGTCAACGC 2027
                     GCGT GGC AATGACAGGGT
                     CGCA CTG TTACTGTCCCA
                       A CA
GAM65 FGFR2
             3' ACCCTGTCATTACGTCAACGC 2028
                     GCGT GGC AATGACAGGGT
                     CGCA CTG TTACTGTCCCA
                       A CA
             5' ACCAAGGCTGCCACGCTCTAA 2010
                                                ATGACAG
GAM65 MMP19
                                           Т
                     TTAG AGCGTGGCA
                                     GGT
                     Ш
                     AATC TCGCACCGT
                                     CCA
                           CGGAA_
GAM66 ARHGEF12 3' AATAATGTCATTCTCAATTAA 1619
                                             TΑ
                     TTAATTG AATGATATTATT
                     AATTAAC TTACTGTAATAA
                        TC
            3' AATATTTGTATTACTTACAATT 1239
GAM66 OS4
                                               TAT
         AA
                      TTAATTGTAA TGATAT TATT
                     AATTAACATT ATTATG ATAA
                            TTT
GAM66 LOC148289 3' AATAATAACATATACAATTAA 3300
                                             A A
                     TTAATTGTA ATG TATTATT
                     AATTAACAT TAC ATAATAA
                         A A
GAM66 LOC253160 3' AATAATAACATATACAATTAA 3714
                                             A A
                     TTAATTGTA ATG TATTATT
```

```
AATTAACAT TAC ATAATAA
                        A A
GAM67 GAN
           3' TGAGTGTGGTACATTAACT 1975 A CA
                     AG TAA TACCACAC CA
                     TC ATT ATGGTGTG GT
                      A AC
            3' AAAGAGTGAATGTGGTATATTT 1222
GAM67 IDH3A
                                         TAAC
                                                \mathsf{C}_{-}
                      AGA ATACCACA CATTTTTT
         CT
                     TCT TATGGTGT GTGAGAAA
                      TTA
                            AA
GAM67 PEX1
            3' AAAAAATGGTGTCTATGAATTT 749
                                        TAA_ CC
         CT
                      AGA CATA ACACCATTTTTT
                     TCT GTAT TGTGGTAAAAA
                      TTAA C
GAM67 PYGO2 3' AAAAATTGGGATATGTTATCT 2676
                                            CCACA T
                     AGATAACATA CCA TTTTT
                     TCTATTGTAT GGT AAAAA
                         AG___ T
GAM67 FLJ21477 3' TGGCGTGAGATGTTATCT 2142
                                           AC A
                     AGATAACAT CAC CCA
                     TCTATTGTA GTG GGT
                        GA C
GAM67 NS1-BP 3' AAAAAATGGTGTTTTATCT 2953
                                         CATACC
                     AGATAA ACACCATTTTTT
                     TCTATT
                            TGTGGTAAAAA
                       Т
                                            CC CCA
GAM67 UNC5D 5' AAAAAAGCTGTAATATGTTATC 2391
         Т
                     AGATAACATA ACA TTTTTT
                     TCTATTGTAT TGT AAAAAA
                         AA CG
GAM67 LOC257451 3' AAAAATTGGGATATGTTATCT 3678
                                             CCACA T
                     AGATAACATA CCA TTTTT
                     TCTATTGTAT GGT AAAAA
                         AG___ T
GAM68 CHAC
            3' TGCCCATATGTCCATTTAT 1612
                                            AGAT
```

CC__ GAM68 GGCX 3' CTGCACCCTGCCACTTGT 778 A TATAGA ATAAGTGG CA TGCAG |||||||| ||||

ATAAGTGGACATAT GCA

TATTTACCTGTATA CGT

```
TGTTCACC GT ACGTC
                       _ CCC__
GAM68 ITPKB 3' TCTGCATCTGTCCAC 911
                                  TATA
                    GTGGACA GATGCAGA
                    CACCTGT CTACGTCT
GAM68 KCNAB1 3' TCTAATGTTATGTCCACTTA 2584
                    TAAGTGGACATA TAGA
                    ATTCACCTGTAT ATCT
                        TGTA
GAM68 KLRC4 5' CTGTCAAAATATACACCACTTA 1451 ACA GA_ _
        Т
                    ATAAGTGG TATA TG CAG
                    TATTCACC ATAT ACGTC
                       AC AAA T
GAM68 MLF2 3' TCTGCATCTACTGACTTG 1212 _ ACATA
                    TAAGT GG TAGATGCAGA
                    GTTCA TC ATCTACGTCT
                      G ____
GAM68 NR1I2 3' TCTGCATCCATTTGAACAC 1067
                                     GA T A
                    GTG CA AT GATGCAGA
                    CAC GT TA CTACGTCT
                     AA T C
GAM68 NR1I2 3' TCTGCATCCATTTGAACAC 1971 GA T A
                    GTG CA AT GATGCAGA
                    CAC GT TA CTACGTCT
                     AA T C
GAM68 CEP3 3' TTCTACATCAGATGTTGTCACT 1304
                                         ATA C
        TAT
                     ATAAGTG GACAT GATG AGAA
                    TATTCAC TTGTA CTAC TCTT
                      TG GA_ A
GAM68 FHX 3' TCATGGATCATGTCCAC 1825
                                     ATA G _
                    GTGGACAT GAT CA GA
                    CACCTGTA CTA GT CT
                       ___ G A
GAM68 FLJ10352 3' TTCTGCATCTACAACTCAACAT 2233
                                        GACATA
        TTA
                     TAAGTG TAGATGCAGAA
                    ATTTAC ATCTACGTCTT
                      AACTCAAC
GAM68 FLJ22127 3' TCGAGTCCATATGTCCAC 2008
                                       A GCA
```

GTGGACATAT GAT GA

```
CACCTGTATA CTG CT
                         C AG
GAM68 GDAP1L1 3' TCTGCATCCATGCCAC
                                        A ATA
                                  2043
                     GTGG CAT GATGCAGA
                     CACC GTA CTACGTCT
                       _ C__
GAM68 H-L(3)MBT 3' TCTGCTCTCTACCCACT
                                  2230
                                         ACA T T
                     AGTGG TA AGA GCAGA
                     TCACC AT TCT CGTCT
                       C C
GAM68 KIAA1340 3' TCTAAGCTATGCCCATTTAT 2846
                                           Α ___
                     ATAAGTGG CATA TAGA
                     TATTTACC GTAT ATCT
                        C CGA
GAM68 KNSL7 3' TTCTGCATCCATATACACCCT 1905 T AC A
                     AG GG ATAT GATGCAGAA
                     TC CC TATA CTACGTCTT
                      _ ACA C
GAM68 P5-1
           3' CTCCATTTATGTACCCAC 1322
                                       AC
                                             С
                     GTGG ATATAGATG AG
                     1111 1111111111111
                     CACC TGTATTTAC TC
                       CA
                                            C T____
GAM68 PP1044 5' CTGCATCTTTACCTATATCCAT 1956
         TTA
                      TAAGTGGA ATA AGATGCAG
                     ATTTACCT TAT TCTACGTC
                        A CCATT
GAM68 SIRPB1 3' TGCATGTGTCCACTTA
                                 1272
                                          ATAG
                     TAAGTGGACAT ATGCA
                     ATTCACCTGTG TACGT
GAM68 LOC148811 3' CTGCATCTCTCCCCTTA
                                         T CATAT
                                   3126
                     TAAG GGA AGATGCAG
                     ATTC CCT TCTACGTC
                       C C_
GAM68 LOC149711 3' TCCATATGTCTATCCACTTA 3315
                                                 Α
                     TAAGTGGA CATAT GA
                     ATTCACCT GTATA CT
                        ATCT C
GAM68 LOC150630 5' CTGCATCTTCTGCCACT
                                   3332
                                          A TAT
```

AGTGG CA AGATGCAG

```
TCACC GT TCTACGTC
                       _ CT_
GAM68 LOC150819 5' CTGCATTTTAGTCCAACT 3333
                                         _ ATAT
                     AGT GGAC AGATGCAG
                     TCA CCTG TTTACGTC
                      A AT
GAM68 LOC154877 3' TCTGCATCCATTCCACT
                                   3373
                                          CAT A
                     AGTGGA AT GATGCAGA
                     TCACCT TA CTACGTCT
                        С
GAM68 LOC158327 3' TTCTGCAGGGACACCACTTAT 3216
                                             ACATATAGA
                     ATAAGTGG
                                TGCAGAA
                     TATTCACC
                                ACGTCTT
                        ACAGGG
GAM68 LOC196540 3' TCTGCATCCATGTACTCC 3467
                                         C A
                     GGA ATAT GATGCAGA
                     CCT TGTA CTACGTCT
                      CA C
GAM68 LOC220394 5' TCTCAGAATATGTCCAT
                                           AGA C
                                  3581
                     GTGGACATAT TG AGA
                     TACCTGTATA AC TCT
                         AG_ _
GAM68 LOC254428 3' CTGTTGACCCATGTCCACCTAT 3677 A
                                                ATAGAT
                     ATA GTGGACAT GCAG
                     TAT CACCTGTA
                                  TGTC
                          CCCAGT
                      С
GAM68 LOC92405 3' TTCTGTTACACATGTCTACTTA 2848
                                              ATAGAT
                     TAAGTGGACAT GCAGAA
                     ATTCATCTGTA
                                  TGTCTT
                         CACAT
GAM69 DKFZP434G14113' TAGGTTGATACATGTATCA 3554
                                                  AA
                     TGATACATGTATTAA TA
                     ACTATGTACATAGTT AT
                           GG
GAM69 DKFZP564I0523' GAAAGTATTCCTATCATGTAT 2760
                                              T TAA
                     ATACATG AT AATACTTTC
                     TATGTAC TA TTATGAAAG
                        _{-} TCC
GAM69 KLHL8
            3' AAAGTATTTGTTACATAATCA 2639
                                         AC
                                             TTA
                     TGAT ATGTA AAATACTTT
```

```
A_ TG_
GAM69 XLKD1 3' AAAGTGCCATTAACAAATGTAT 1323
                                           GTA AA
         CA
                      TGATACAT TTAA TACTTT
                     ACTATGTA AATT GTGAAA
                        AAC ACC
GAM69 LOC51003 3' GAGGCACTTAATACATGTAT 1658
                                              AATA
                     ATACATGTATTAA CTT
                     TATGTACATAATT GAG
                          CACG
GAM70 NEU3
            3' ATGATTTGTTCCATTTTTA 1319
                                         TA
                     TAAAAAT AACAAATCGT
                     ATTTTTA TTGTTTAGTA
                        CC
GAM70 CHPT1 3' AACATTTGTTTAATTTTTA 1906
                                             С
                     TAAAAATTAAACAAAT GTT
                     ATTTTTAATTTGTTTA CAA
GAM70 LOC143310 3' AATTTGTGATTTGTTTAATTT 3057
                                               TT
                     AAATTAAACAAATCG ATT
                     TTTAATTTGTTTAGT TAA
                           GTT
GAM70 LOC152578 5' TAATAACAAATGTTTAATTTTT 3361
                                               AATC
         Α
                     TAAAAATTAAACA GTTATTA
                     ATTTTTAATTTGT CAATAAT
                          AAA
GAM71 HNF3A
           3' ACAGCATAATAAAATCC
                                2543
                                        C GTT
                     GGATT TGT TATGCTGT
                     CCTAA ATA ATACGACA
                       Α ___
GAM71 MUC12 3' AGCTGCAAACACAGAGCCCA 3643
                                          ΑT
                                              TA T
                     TGG TCTGTGTT TGC GTT
                     ACC AGACACAA ACG CGA
                      CG
                           ___ T
GAM71 OGN
            3' ACAGCATTACAAAATCC
                                 2307
                                        C TTT
                     GGATT TGTG ATGCTGT
                     11111 1111 1111111
                     CCTAA ACAT TACGACA
                       Α
                                        C TTT
GAM71 OGN
            3' ACAGCATTACAAAATCC
                                1467
```

GGATT TGTG ATGCTGT

11111 1111 1111111

ACTA TACAT TTTATGAAA

```
CCTAA ACAT TACGACA
                        Α
                                  2059
                                         C TTT
GAM71 OGN
            3' ACAGCATTACAAAATCC
                      GGATT TGTG ATGCTGT
                      CCTAA ACAT TACGACA
                        Α
GAM71 PTPRA 3' AGATAAACACAAAATCCAT 962
                                           C
                                                G
                      ATGGATT TGTGTTTAT CT
                      TACCTAA ACACAAATA GA
GAM71 PTPRA
             3' AGATAAACACAAAATCCAT 2389
                                           С
                                                G
                     ATGGATT TGTGTTTAT CT
                      TACCTAA ACACAAATA GA
GAM71 PTPRA 3' AGATAAACACAAAATCCAT 2390
                                           С
                                                G
                     ATGGATT TGTGTTTAT CT
                     TACCTAA ACACAAATA GA
                        Α
GAM71 TIRAP
            3' AGCTAGAAACAGAAAACCCAT 2344
                                           Α
                                                G T
                     ATGG TTCTGT TTTA GCT
                      TACC AAGACA AGAT CGA
                       CAA
                             Α
GAM71 ATF3
            3' AGCGTTAACACAAAATCCAT 1080
                                               Т
                                           С
                     ATGGATT TGTGTT ATGCT
                      TACCTAA ACACAA TGCGA
                        Α
                           Т
GAM71 FLJ22457 3' AACATCTTCAACACAGAACACA 2106
                                            GA
                                                 TATGC
                     TG TTCTGTGTT TGTT
                      AC AAGACACAA
                                   ACAA
                      AC
                            CTTCT
GAM71 LIPG
            3' AGCCTAAACACAAAATTCAT 1266
                                               Т
                                           С
                      ATGGATT TGTGTTTA GCT
                      1111111 11111111 111
                      TACTTAA ACACAAAT CGA
                             С
GAM71 MGC4643 3' AACAGCATAAACAGCTGGACC 2271
                                            A T_
                      GG TTC G TGTTTATGCTGTT
                      CC AGG C ACAAATACGACAA
                      _ T G
GAM71 LOC143888 3' AGTCTAAACACAAAATTCAT 3064
                                             С
                                                 Т
                     ATGGATT TGTGTTTA GCT
```

1111111 11111111 111

```
TACTTAA ACACAAAT TGA
```

C

Α GAM71 LOC149619 5' AACATCTTCAACACAGAACACA 3311 GA **TATGC** TG TTCTGTGTT TGTT AC AAGACACAA ACAA AC CTTCT GAM71 LOC91464 5' AACAGCATAAAGGACCCCA 2740 AT GTG TGG TCT TTTATGCTGTT ACC AGG AAATACGACAA CC GAM72 CLDN1 3' ATATTAATTAGTTTATATTA 1940 TAATATAAACTAAT AATAT ATTATATTTGATTA TTATA GAM72 KIAA1706 3' ACAGTGTTCATAGTTTATATTA 3577 ATAAT TAATATAAACTA ATATTGT ATTATATTTGAT TGTGACA ACT GAM73 B3GALT5 3' GTGCTGAAATCCACGCCAGA 2317 **A**_ T TCT GCGTGGAT CAG CAC AGA CGCACCTA GTC GTG AA GAM73 B3GALT5 3' GTGCTGAAATCCACGCCAGA 1268 A T Α TCT GCGTGGAT CAG CAC AGA CGCACCTA GTC GTG С AA GAM73 B3GALT5 3' GTGCTGAAATCCACGCCAGA 2318 A T TCT GCGTGGAT CAG CAC AGA CGCACCTA GTC GTG С AA _ GAM73 B3GALT5 3' GTGCTGAAATCCACGCCAGA 2319 A_ T TCT GCGTGGAT CAG CAC AGA CGCACCTA GTC GTG AA GAM73 B3GALT5 3' GTGCTGAAATCCACGCCAGA 2321 **A**_ T Α TCT GCGTGGAT CAG CAC AGA CGCACCTA GTC GTG С AA _ GAM73 MEF2A 3' GTGACTGTAGTTACTTAAGA 1229 CCATCT TAG GTGG TACAGTCAC

111 111 1111 111111111

```
AGA ATT CATT ATGTCAGTG
```

_ _ G GAM73 ORC2L 3' GTGAGAAGCCAGGCTAGAGA 1278 G ATACAG TCTCTAGC TGG TCAC AGAGATCG ACC **AGTG** G GAAG GAM73 PART1 3' CGGTGACTATATGAGAATGGA 1699 GCGTGG C TCTA ATA AGTCACCG AGGT TAT TCAGTGGC AAGAG A GAM73 SLC10A1 3' GTGACTGTAAACTCTATG 989 CGTGGA TACAGTCAC GTATCT ATGTCAGTG CAA GAM73 FUSIP1 3' GTGACTGTAATATACTAGAG 1314 CG GA CTCTAG TG TACAGTCAC GAGATC AT ATGTCAGTG AT A_ GAM73 RAI17 3' GTGACTGTGGAGCCTGAGA 3515 T C GGA TCTC AG GT TACAGTCAC AGAG TC CG GTGTCAGTG _ _ AG_ GAM73 LOC115811 5' GGTAACTGTGGCTAGGGA 2442 GTGGA С TCTCTAGC TACAGT ACC AGGGATCG GTGTCA TGG GAM73 LOC256946 3' GTGACTGTAATATACTAGAG 3657 CG GA CTCTAG TG TACAGTCAC GAGATC AT ATGTCAGTG AT A GAM74 PEX3 3' AATATAGATATTTTATATAC 1044 GTATGTA TATCTATATT CATATAT ATAGATATAA TTT GAM74 PKD2L2 3' TTAATATGAGACATACTG 1497 **ATATC** CAGTATGT TATATTAA GTCATACA GTATAATT $\mathsf{GA}_{_}$ GAM74 BA108L7.2 3' ATGCATATACATACATGATA 2179 С TATCA GTATGTATAT TAT

```
ATAGT CATACATATA GTA
                       Α
                            C
          3' TTAATGTATTATATACACTGAT 2776
                                             TC
GAM74 IDI1
                      TATCAGT TGTATA TATATTAA
                     ATAGTCA ATATAT ATGTAATT
                           Т
GAM74 PRO0899 5' AGTGTTTTACACATACTGAT 1846
                                             A TCT
                     ATCAGTATGT TA ATATT
                     TAGTCATACA AT TGTGA
                         C TT
GAM74 SEC14L1 3' TGGTAATACAATACTGATA 980
                                              AT
                     TATCAGTAT GTAT CTA
                     ATAGTCATA CATA GGT
                         A AT
GAM74 LOC130074 3' TTAACATAGAATGTTTACTGAT 3045
                                              TG A A
         Α
                      TATCAGTA TAT TCTAT TTAA
                     ATAGTCAT GTA AGATA AATT
                        TT _ C
GAM74 LOC222159 5' AGACCATGCATACTGATA 3633
                     TATCAGTATGTAT TCT
                     ATAGTCATACGTA AGA
                          CC
            3' AAGGAACTTTTGTATAATA 2263
GAM75 RNF28
                                            Α
                     TATTATACAAAA TTTTTT
                     ATAATATGTTTT AAGGAA
                          С
GAM75 SWAP70 3' GAAATAAAAATTATTTGTATAA 2916
                                              AAT
         Т
                      ATTATACAAA TTTTTATTTC
                     TAATATGTTT AAAAATAAAG
                         ATT
GAM75 bA430M15.1 3' AAAAATTTTTGTATAATG 3072
                     TATTATACAAAAATTTTT
                     GTAATATGTTTTTAAAAA
```

3' TTTGATTCGGATGTTATA 1337

GC

3' TTTTGAACTACAGATGTTGTA 968

TATAACATC AATCAAA

ATATTGTAG TTAGTTT

TATAACATC GTA TCAAAA

GT

_ A_

GAM76 PSG1

GAM76 RALB

```
ATGTTGTAG CAT AGTTTT
                         A CA
GAM76 CEACAM8 3' TTTGATTGGGATGTTATA 859
                                            G
                     TATAACATC TAATCAAA
                     ATATTGTAG GTTAGTTT
                         G
GAM76 LAT1-3TM 3' TTTTGGTGGCTCGATGTTA 2183
                                            TA_
                     TAACATCG ATCAAAA
                     ATTGTAGC
                              TGGTTTT
                        TCGG
GAM76 LAT1-3TM 5' TTTTGGTGGCTCGATGTTA 2827
                                            TA__
                     TAACATCG ATCAAAA
                     ATTGTAGC
                              TGGTTTT
                        TCGG
GAM76 MCFP
            5' TTTTGGCTACTGATGTTA 1863
                                          ΑT
                     TAACATC GTA CAAAA
                     ATTGTAG CAT GTTTT
                        T CG
GAM76 MGC26651 3' TTTTGATGTGAAAGATGTTATA 2489
                                              GTA
                     TATAACATC
                                ATCAAAA
                     ATATTGTAG
                                TAGTTTT
                         AAAGTG
GAM76 LOC197423 5' TTTTGGTGGCTCGATGTTA 3090
                                             TA
                     TAACATCG ATCAAAA
                     ATTGTAGC
                              TGGTTTT
                        TCGG
GAM76 LOC220565 5' TTTTGGTGGCTCGATGTTA 3495
                                             TΑ
                     TAACATCG ATCAAAA
                     ATTGTAGC
                              TGGTTTT
                        TCGG
GAM77 FLJ13215 3' GAATATTCTACCTAAATAT 2126
                                         G A
                     ATA TTAG TAGAATATTC
                     TAT AATC ATCTTATAAG
                      A C
GAM77 PTP4A1 3' CTAATGAATTGAGCACATCTAA 1027
                                             AGAAT__
         Т
                      GTTAGAT
                               ATTCATTAG
                     |||||||
                           TAATCTA
                               TAAGTAATC
                        CACGAGT
GAM77 SDFR1
             3' TGGTAATATTCTATGCAACTAT 1430
                                            AG
                                                  С
                     ATAGTT ATAGAATATT ATTA
```

```
TATCAA TATCTTATAA TGGT
                        CG
GAM77 SDFR1 3' TGGTAATATTCTATGCAACTAT 1718
                                            AG
                                                  С
                     ATAGTT ATAGAATATT ATTA
                     TATCAA TATCTTATAA TGGT
                        CG
GAM77 LOC221133 3' CTAATGAAGAGAATATTTAAC 3608
                                              GAATA
                     GTTAGATA TTCATTAG
                      CAATTTAT AAGTAATC
                         AAGAG
GAM78 DJ667H12.2 3' TTATGCCATGAACATGCCA 1884
                                               CGATAA
                     TGGTATGTTCA GTATAA
                     ACCGTACAAGT
                                   CGTATT
                          AC
GAM78 KIAA1799 3' TTATACTTAGAACTTACCA 3003
                                          T ACGA
                     TGGTA GTTC TAAGTATAA
                     ACCAT CAAG ATTCATATT
                       T ___
GAM78 PPP1R3B 3' TTTATGTAAACATACCA 2071
                                           CG
                     TGGTATGTT AC ATAAG
                      ACCATACAA TG TATTT
                         Α_
GAM78 LOC144840 3' ATTTCTCGTGAACACCCA 3071
                                                Т
                                           TΑ
                     TGG TGTTCACGA AAGT
                      ACC ACAAGTGCT TTTA
                            С
GAM78 LOC158674 3' ATTTCCCGTGAACACCCA 3222
                                           TΑ
                                                AΤ
                     TGG TGTTCACG AAGT
                      ACC ACAAGTGC TTTA
                       \mathsf{C}_{-}
                           CC
GAM78 LOC245757 3' ATTTCCCGTGAACACCCA 3496
                                           TΑ
                                                ΑT
                      TGG TGTTCACG AAGT
                      111 11111111 1111
                      ACC ACAAGTGC TTTA
                       C_
                           CC
GAM78 LOC81034 3' ATTTATCGTAAACATCCA 2164
                                          T C
                     TGG ATGTT ACGATAAGT
                      ACC TACAA TGCTATTTA
GAM79 DTNB
             3' CTAATATCCAGAATCTACAAAG 2316
                                            TA A G
                      TCTTT AGA TT TGGATATTAG
         Α
```

```
AGAAA TCT AA ACCTATAATC
                       CA G
                                             GA
GAM79 SP100 3' AGTAAATACAATTTTTAAAA 993
                     TTTTAAGAATTGTG TATT
                     AAAATTTTTAACAT ATGA
                           AA
GAM79 KIAA1229 3' AATATCCAGAATCTACAAAGA 2620
                                            TA A G
                     TCTTT AGA TT TGGATATT
                     AGAAA TCT AA ACCTATAA
                       CA G
GAM79 LOC144776 3' AATATTCAATATTCTTAAAGA 3070
                                               TG
                     TCTTT AAGAAT TGGATATT
                     AGAAA TTCTTA ACTTATAA
                          TΑ
                                             T T
GAM79 LOC199775 5' CTAATTCTTCAATTCTTAA 3432
                     TTAAGAATTG GGA ATTAG
                     AATTCTTAAC TCT TAATC
                         T _
GAM79 LOC222236 3' GTCTACAATTCCCAAAAGA 3651
                                            AA
                     TCTTTT GAATTGTGGAT
                     AGAAAA CTTAACATCTG
                        CC
GAM80 CHRNA1 3' TTATTATTGATGATAAGA 701
                                         С
                     TCT ATCATCAG AATAA
                     AGA TAGTAGTT TTATT
                       Α
                           Α
GAM80 TNFSF9 3' ATTTATTCTGAGCCTGAG 1062
                                         TCA
                     CTCA TCAGAATAAAT
                     GAGT AGTCTTATTTA
                       CCG
GAM80 AKT3
            3' ATTTATTTTTTAGTGATGAGAA 1214
                                            C__
                     TTCTCATCAT AGAATAAAT
                     AAGAGTAGTG TTTTATTTA
                         ATT
GAM80 FLJ10103 3' TTGTTTACTGATGAGAA
                                 1773
                                           TCA
                     TTCTCATCA GAATAA
                     AAGAGTAGT TTTGTT
                         CA_{-}
GAM80 FLJ22582 3' TTTTGTAAATGATGAGAA 2132
                     TTCTCATCAT CAGAA
```

```
AAGAGTAGTA GTTTT
                         AAT
GAM80 KIAA1371 3' ATTCTAGAAATGGTGAGAA 3454
                     TTCTCATCA TC AGAAT
                     AAGAGTGGT AG TCTTA
                         AA A
GAM80 MACF1
             3' ATTTATTCTGAACGGGAGAA 2308
                                           ATCA
                     TTCTC TCAGAATAAAT
                     AAGAG AGTCTTATTTA
                       GGCA
GAM80 MACF1
             3' ATTTATTCTGAACGGGAGAA 1403
                                           ATCA
                     TTCTC TCAGAATAAAT
                     AAGAG AGTCTTATTTA
                       GGCA
GAM80 MGC16824 3' TTATTCTGACAATGAAGA 1910
                                         _ CA
                     TCT CAT TCAGAATAA
                     AGA GTA AGTCTTATT
                      A AC
GAM80 NR2C1 3' ATTTATTCTTGGTGAAGA 1006
                     TC TCATCA GAATAAAT
                     AG AGTGGT CTTATTTA
                                           _ TCA
GAM80 P450RAI-2 3' ATTTATTCACTGATAGAGAA 1887
                     TTCTC ATCA GAATAAAT
                     AAGAG TAGT CTTATTTA
                       A CA_
GAM80 LOC152715 5' ATTTGGCTGATGATGGAA 3174
                                          Т
                                              AA
                     TTC CATCATCAG TAAAT
                     AAG GTAGTAGTC GTTTA
                           G_{\underline{}}
GAM80 LOC222166 3' ATTCTGTGGGCTGATGAGAA 3634
                                              T___
                     TTCTCATCA CAGAAT
                     GTCTTA
                     AAGAGTAGT
                         CGGGT
GAM80 LOC257042 3' ATTCTGAGTGATGAA 3719
                     TTC TCATCA TCAGAAT
                     AAG AGTAGT AGTCTTA
                      Т
                         G
                                         _ GAG TAAA
GAM81
      CORO2B 5' TTCTGTTGCCCAAGCTGG 2694
                     CC GCT TGG CAACAGAA
```

```
GG CGA ACC GTTGTCTT
                     T ___ C___
GAM81 EFNB2 3' GTTCTGTTACCCAGGGCTCTGC 1084 T AACA
                    GC GAGT GGTA ACAGAAC
                    CG CTCG CCAT TGTCTTG
                    T GGAC
GAM81 GCGR
            5' TCTGCTGCTCTGCCACTCAGC 714
                                           AA_A
                    GCTGAGTGGTA CA CAGA
                    CGACTCACCGT GT GTCT
                        CTC C
GAM81
     HMOX1
            3' GTTCTGTTGTTTTTATAGCAGG 901
                                       G AGTGGT
        G
                    CC CTG AAACAACAGAAC
                    GG GAC
                           TTTGTTGTCTTG
                     GATATT
GAM81 HS3ST2 3' GTTCTGTTGCTATGAACACAGC 1267 A GGTAAA
                    GCTG GT CAACAGAAC
                    CGAC CA GTTGTCTTG
                     A AGTATC
GAM81 PIM2
           3' CTGTTGTTACCCCAAGG
                                    GC AGT A
                               2550
                    CC TG GGTAA CAACAG
                    GG AC CCATT GTTGTC
                     A_ C__ _
                              1034
GAM81 PIP5K1B 5' TCTGTTGCTACTAAGC
                                     G
                                        TAAA
                    GCT AGTGG CAACAGA
                    CGA TCATC GTTGTCT
                     Α
            3' TTCTGTTGTGTCTCATACAG 2887
                                      A TAA
GAM81 RBM3
                    CTG GTGG ACAACAGAA
                    GAC TACT TGTTGTCTT
                     A CTG
            3' CTGTCTCCCCACTCAGTGG 1889
GAM81 SMAC
                                          TAAACA
                    CCGCTGAGTGG
                                 ACAG
                    GGTGACTCACC
                                 TGTC
                        CCTC__
GAM81 SMAC
            3' CTGTCTCCCCACTCAGTGG 2459
                                          TAAACA
                    CCGCTGAGTGG
                                 ACAG
                    Ш
                    GGTGACTCACC
                                 TGTC
                        CCTC__
GAM81
     SMAC
            3' CTGTCTCCCCACTCAGTGG 2460
                                          TAAACA
                    CCGCTGAGTGG
                                 ACAG
```

```
GGTGACTCACC TGTC
                        CCTC__
GAM81 SOST 3' TTCTGCCCACCACTCACGG 2148 C AAACAA
                    CCG TGAGTGGT CAGAA
                    GGC ACTCACCA
                                 GTCTT
                        CCC__
GAM81 ZNF10 5' TCTGCTGTCACTCAAGG 1626 GC GTAA A
                    CC TGAGTG ACA CAGA
                    GG ACTCAC TGT GTCT
                    A C
GAM81 ABCA10 5' TTCTGTTAGTTACTCA 2373
                                      GTAA _
                    TGAGTG AC AACAGAA
                    ACTCAT TG TTGTCTT
                      _ A
GAM81 H2AFJ 3' GTTCTGCTATTTACTCTGTGG 1807 T TAAACAA
                    CCGC GAGTGG CAGAAC
                    GGTG CTCATT
                                GTCTTG
                     T TATC___
GAM81 HSH2
           3' GTTCTGTTGTCTAAAAGC 2289
                                     GAG TAA
                    GCT TGG ACAACAGAAC
                    CGA ATC TGTTGTCTTG
                     AA_ _
GAM81 KIAA1024 3' TTCTGTTGTTCACCATTAAGGG 2841 G G
        G
                    CC CT AGTGGT AACAACAGAA
                    GG GA TTACCA TTGTTGTCTT
                    GA C
GAM81 KIAA1399 3' GTTCTGCTATTTCCAATCAGTC 2881 C G T CAA
        Α
                    C GCTGA TGG AAA CAGAAC
                    A TGACT ACC TTT GTCTTG
                    C A _ ATC
GAM81 MIC2L1 3' TCTGTTGTCAGAGGCTCACGG 2205
                                        C GGTAA
                    CCG TGAGT ACAACAGA
                    GGC ACTCG
                             TGTTGTCT
                       GAGAC
GAM81 RASGRF2 3' TTCTGTTAGAACTCAGGG 2590
                                      G
                                          GGTAAAC
                    CC CTGAGT AACAGAA
                    GG GACTCA
                              TTGTCTT
                       \mathsf{AGA}_{\_}
GAM81 TJP2
           3' CTGTTACTTGCTTCAGTGG 2534
                                       GT AC
                    CCGCTGA GGTAA AACAG
```

```
GGTGACT TCGTT TTGTC
```

CA

GAM81 LOC202020 3' TTCTGTTGCCTAAGGCAGC 3459 AG_ TAAA

GCTG TGG CAACAGAA

CGAC ATC GTTGTCTT

GGA C

GAM81 LOC220766 5' TCTGGATTTCACCACTCAGAGG 3499 G AAACAA

CC CTGAGTGGT CAGA

GG GACTCACCA GTCT

A CTTTAG

GAM81 LOC256277 3' CTGTTGTTCAGCAGTG 3664 AG TAA

CGCTG TGG ACAACAG

GTGAC ACT TGTTGTC

G

GAM81 LOC256337 3' CTGTTGTTCAGCAGTG 3663 AG TAA

CGCTG TGG ACAACAG

GTGAC ACT TGTTGTC

G_ ___

GAM82 PTCRA 3' ATGACTGAGAACATTAAA 2433 ATC

TTTAAT CTCAGTCAT

111111 111111111

AAATTA GAGTCAGTA

CAA

GAM82 PUNC 3' ATGACTTGGAACTGAACTAAC 3469 ATA TC

GTTAGTTTA TCC AGTCAT

CAATCAAGT AGG TCAGTA

CA_ T_

GAM82 KIAA0940 3' ACTGATATATATAAACTAAC 1586

GTTAGTTTA ATAT TCAGT

CC

CAATCAAAT TATA AGTCA

AT T_

GAM82 RGS18 3' ATGACTGAGAATAAGATCCAC 2398 TA AA C

GT GTTT TAT CTCAGTCAT

CA TAGA ATA GAGTCAGTA

CC __ A

GAM83 ATP12A 3' CCCTGCAGTGCAGACATCGTCA 846 A A C TT

A TTGATGAT TCT CAT GT GG

AACTGCTA AGA GTG CG CC

C C A TC

GAM83 CRYGS 3' CCAAATAGGCATCATCAA 1722 AT ACATC

TTGATGAT CT GTTTGG

```
AACTACTA GA TAAACC
```

CG

GAM83 LPIN2 3' TCCAAAGTTAATTGTAAACATC 1514 ATC TCG___

ATCAG TTGATGAT TACA TTTGGA

GACTACTA ATGT AAACCT

CAA TAATTG

GAM83 KIAA1786 3' TCCATGCTGTAGATACCA 2738 A TC T

TG TATCTACA GT TGGA

AC ATAGATGT CG ACCT

C T

GAM83 LOC222008 3' CCAAGTTAGATGTCATCAA 3629

TTGATGATATCTA TTTGG

CATCG

AACTACTGTAGAT GAACC

Т

GAM83 LOC90639 5' TCTGAACACAGATATCATCAG 2663 ACATC TG

TTGATGATATCT GTT GA

GACTACTATAGA CAA CT

CA___ GT

GAM84 AP1B1 3' GTCAGGATTGAAAGCTG 803 C ATA

TAGCTTTCA TC TGAC

GTCGAAAGT AG ACTG

ΤG

GAM84 IQGAP1 3' GTCATTTAGAAGTGGAAGCTA 2840 __AT_

TAGCTTTCACT C ATGAC

ATCGAAGGTGA G TACTG

A ATT

GAM84 PDE6A 3' GTCATAGGATTTGAAAGCTG 744 C A

TAGCTTTCA TC TATGAC

GTCGAAAGT AG ATACTG

TT G

GAM84 PTEN 3' CATATAAATGTGGAGGCTA 728 TC__

TAGCTTTCAC ATATG

ATCGGAGGTG TATAC

TAAA

GAM84 SH3GL2 3' TCATGTGGAGTGAAAGGC 985

GC TTTCACTC ATATGA

CG AAAGTGAG TGTACT

G G

GAM84 C1orf16 3' CATGGGAAGTGAAAGCTG 1567 _ A

TAGCTTTCACT C TATG

	GTCGAAAGTGA G GTAC
	A G
GAM84	DKFZp547A023 3' GTCATATAAATGAGTGAAA 2956
	TTTCACTCA TATGAC
	AAAGTGAGT ATACTG
	AAAT
GAM84	FLJ11850 5' GTCATATGTGGCAGCT 2001 T TC
CI (IVIO 1	AGCT TCAC ATATGAC
	 TCGA GGTG TATACTG
0.440.4	C
GAM84	FLJ12888 3' GTCATATTTTTGAAAGTTA 2115 CTC
	TAGCTTTCA ATATGAC
	ATTGAAAGT TATACTG
	TTT
GAM84	FLJ21596 3' GTCATTGCATGGTGAAAGC 2092 T
	GCTTTCAC CAT ATGAC
	CGAAAGTG GTA TACTG
	_ CGT
GAM84	KIAA1878 3' GTCACAGATTTTGAAAGCTA 3539 C_ ATA
	TAGCTTTCA TC TGAC
	ATCGAAAGT AG ACTG
	TTT AC
GAM84	NXPH3 3' GTCATGGGAGGAAGCTA 2728 A TA
Cir title !	TAGCTTTC CTCA TGAC
	ATCGAAGG GGGT ACTG
	A A
GAM84	_
GAIVI04	
	GCTT CA TCATATGAC
	CGAG GT AGTATACTG
	TT A
GAM84	SYT13 3' CAGATGCAGAGAAAGCTA 3605 A A A
	TAGCTTTC CT CAT TG
	ATCGAAAG GA GTA AC
	A C G
GAM84	LOC134301 3' GTCATATGTTAAAGAGCTA 3016 CACT
	TAGCTTT CATATGAC
	ATCGAGA GTATACTG
	AATT
GAM84	LOC151438 3' GTCATTTCTGATGAAAGCTG 3346 C T_

TAGCTTTCA TCA ATGAC

```
GTCGAAAGT AGT TACTG
                         _ CTT
GAM84 LOC158696 3' TCATATGAAGAAAGCTA
                                           AC
                                   3223
                     TAGCTTTC TCATATGA
                     ATCGAAAG AGTATACT
                        Α
GAM84 LOC221975 3' GTCATATGACAGGGCTG
                                    3570
                                           CAC
                     TAGCTTT TCATATGAC
                     GTCGGGA AGTATACTG
                        С
GAM84 LOC84549 3' GTCAAGTGGAAAGCTA
                                   2256
                                           ACT A
                     TAGCTTTC CAT TGAC
                     ATCGAAAG GTG ACTG
                         _ A
GAM84 LOC90459 3' TCATATAGGGTGAAAAGC 2644
                     GCTTT CACTC ATATGA
                     CGAAA GTGGG TATACT
                       A A
GAM84 LOC90529 3' GTCTACTGGGCGAAAGCTA 2652
                                            A TAT
                     TAGCTTTC CTCA GAC
                     ATCGAAAG GGGT CTG
                        C CAT
GAM85 F2RL3 3' TGGTGAAATCCTATCTCT 1074
                                             ATGTAA
                                        AG
                     AGA TAGGATT
                                  CATCA
                     TCT ATCCTAA
                                  GTGGT
                      СТ
                           Α
GAM85 RAP1B 3' ATGTTACAACTACTTT 1642
                                        GATTA
                     GAAGTAG TGTAACAT
                     TTTCATC ACATTGTA
                        A_{\underline{\phantom{a}}}
GAM85 SLC6A12 3' TTGCCATCCTGCTTCT
                                           TAT
                                  988
                     AGAAGTAGGAT GTAA
                     TCTTCGTCCTA CGTT
                          C__
GAM85 ALDH5A1 3' TGCAAATCCTACCCCTG
                                   799
                                         AA
                                              Α
                     CAG GTAGGATT TGTA
                     GTC CATCCTAA ACGT
                      CC
GAM85 C20orf112 3' TGATGTTAGAATCCCAC
                                  2379
                                        A ATG
                     GT GGATT TAACATCA
```

```
CA CCTAA ATTGTAGT
                     C G_
GAM85 DICER1 3' GATGCCACATAGTCTTGC 2152
                                           AA
                    GTAGGATTATGT CATC
                    CGTTCTGATACA GTAG
                         CC
GAM85 DKFZP566G1424 5' TGATGTTAGAATCCCAC
                                      3320 A ATG
                    GT GGATT TAACATCA
                     CA CCTAA ATTGTAGT
                     C G
GAM85 FLJ10858 3' ATGTTTGGTCCTCCTCT 1805
                                        ΑТ
                                             TGT
                     CAGA G AGGATTA AACAT
                     GTCT C TCCTGGT TTGTA
                      С
GAM85 FLJ13265 3' TGATGTTACTTGCCACCTACTT 2100
                                            ATTAT
        C
                     GAAGTAGG GTAACATCA
                          CTTCATCC CATTGTAGT
                        ACCGTT
GAM85 FLJ22282 3' TGATGTGGAAACCTACTTCTG 2089
                                           A ATGTA
                    CAGAAGTAGG TT ACATCA
                     GTCTTCATCC AA TGTAGT
                        A GG
GAM85 GBTS1 3' GATGTTGCCTCTCTCTG 2516 A T TTAT
                    CAG AG AGGA GTAACATC
                     GTC TC TCCT CGTTGTAG
                      C _ C_
GAM85 KIAA0193 3' TGATGTCCTAGTCCTACCACT 1545
                                         AA
                                               TGTA
                    AG GTAGGATTA ACATCA
                     TC CATCCTGAT TGTAGT
                     AC
                           CC
GAM85 KIAA1030 3' TGATGCCCTGTCCTCACCTCTG 3597
                                           A _ TATGTAA
                     CAGA GT AGGAT
                                  CATCA
                     | | | | | |
                     GTCT CA TCCTG
                                   GTAGT
                      C C TCCC
GAM85 OR7C1
            3' ATGTTTCATGCATCCATACTTC 1719
                                                Τ
        TG
                      CAGAAGTA GGAT TATG AACAT
                     GTCTTCAT CCTA GTAC TTGTA
                        A C T
GAM85 PRO2214 3' TATGTAAATCCTACTTTTG 1834
                    CAGAAGTAGGATT ATGTA
```

GTTTTCATCCTAA TGTAT GAM85 SMCR5 3' ACATGGGGAGATCCTACCTCT 2502 Α AGA GTAGGATT ATGT TCT CATCCTAG TACA C AGGGG GAM85 SSH1 3' ACATTAAGTCCTACCTCTG 1869 CAGA GTAGGATT ATGT GTCT CATCCTGA TACA С ΑT GAM85 TERA 3' TGGATCATCTCTACTTCTG 1948 ΤG CAGAAGTAG GAT AT TA GTCTTCATC CTA TA GT TCG GAM85 WBSCR23 5' ATATAGTGAGACCCTATTTCT 2131 AGAAGTAGG ATTATGT TCTTTATCC TGATATA **CAGAG** GAM85 LOC134637 3' ATGTTACATGCACCTTC AGT AT 3017 GA AGG TATGTAACAT CT TCC GTACATTGTA AC GAM85 LOC146745 5' GATGCCGAGGACATCTTACTCC 3098 Α TATGTAA TG CAG AGTAGGAT CATC Ш GTC TCATTCTA GTAG С CAGGAGCC GAM85 LOC153416 3' ATGTTACAACTACTTT 2573 **GATTA** GAAGTAG TGTAACAT TTTCATC ACATTGTA Α GAM85 LOC157867 5' TGATTCAACAATCTTACTCCTG 3383 Α TA AAC CAG AGTAGGAT TGT ATCA GTC TCATTCTA ACA TAGT __ ACT GAM85 LOC201243 5' GATGCCGAGGACATCTTACTCC 3425 TATGTAA_ Α

C CAGGAGCC

GAM86 OSR1 3' CGTTAGTAAACTTACTTCATA 1188 AG_ CT

TATGAAGTAA TAT ACG

|||||||||| |||

CAG AGTAGGAT

GTC TCATTCTA

Ш

GTAG

TG

```
CAA AT
GAM86 PACE4 5' CGCAGGCCCTTTACTTCA 2435
                                        TA A
                    TGAAGTAAAG TCT CG
                    ACTTCATTTC GGA GC
                        CC C
GAM86 KIAA1462 3' CGTATGATTTTATTTCATA 3522
                                          ATC
                    TATGAAGTAAAGT TACG
                    ATACTTTATTTTA ATGC
                         GT
GAM86 LOC145945 3' TCATAGATACAATACTTTA 3280
                                         AA
                    TGAAGTA GTATCTA GA
                    ATTTCAT CATAGAT CT
                       AA
                           Α
GAM86 LOC219401 5' TCGTGGGCCCGCACTTCATA 3580
                                           AAAGTA
                    TATGAAGT TCTACGA
                         ATACTTCA
                            GGGTGCT
                       CGCCC
GAM87 ABCA1 3' TGGTGGCAGTAACATGCAAC 1219 T
                                            CA
                    GTT GCATGTTAC CTATCA
                    CAA CGTACAATG GGTGGT
GAM87 CD2AP 3' ATAATGGTAATAGGAAAAC 1408
                                       GCA
                                             C
                    GTTT TGTTACCA TAT
                    CAAA ATAATGGT ATA
                     AGG
                           Α
GAM87 HHIP 5' TGACACTGGCACAACTGCAAAC 1989 T A_ CTA
        GG
                     CCGTTTGCA GTT CCA TCA
                    GGCAAACGT CAA GGT AGT
                       _ CAC CAC
GAM87 AKAP7 3' TGATAGTGTCTGCACAAC 1159
                                      _ TGTTAC
                    GTT TGCA
                             CACTATCA
                    CAA ACGT GTGATAGT
                     C CT_
                                      _ TGTTAC
GAM87 AKAP7 3' TGATAGTGTCTGCACAAC 1683
                    GTT TGCA
                             CACTATCA
                    CAA ACGT
                             GTGATAGT
                     C CT_
                                      _ TGTTAC
GAM87 AKAP7
            3' TGATAGTGTCTGCACAAC 2446
                    GTT TGCA CACTATCA
```

ATACTTCATT ATG TGC

```
CAA ACGT GTGATAGT
                     C CT
GAM87 ARHGAP5 3' TTGATAATGTTGTGCAAAGG 3077 G TTAC C
                    CC TTTGCATG CA TATCAA
                    GG AAACGTGT GT ATAGTT
                        T___ A
GAM87 C22orf19 3' TGACAGTGCAGTGCAAAC 1048
                                     GTTAC A
                    GTTTGCAT CACT TCA
                    CAAACGTG GTGA AGT
                       AC C
GAM87 DKFZp566D234 3' GACAGTGGTAAGTAAA 2611
                                          ATG
                    TTTGC TTACCACT TC
                    AAATG AATGGTGA AG
GAM87 FLJ11160 3' TGACAGCGAGATGCAAGC 1815 G ACCA A
                    GTTTGCAT TT CT TCA
                    CGAACGTA AG GA AGT
                       G C___ C
GAM87 FLJ13089 5' TTGACAATGGTAATAATAAAAT 2899
                                       GCA
                                               CTA
                     CCGTTT TGTTACCA TCAA
        GG
                    GGTAAA ATAATGGT AGTT
                      ATA
                            AAC
GAM87 FLJ14297 3' ATAGTTTAAACATGCAAC 2107 T
                                          ACC
                    GTT GCATGTT ACTAT
                    CAA CGTACAA TGATA
                        ATT
GAM87 HSPC065 3' TGACAGTGGTAGAATAAAGG 1483 G CATG
                    CC TTTG TTACCACT TCA
                    GG AAAT GATGGTGA AGT
                     _ AA__ C
GAM87 LOC150737 3' TGATAGTGGCATTTATCAAATG 3149
                                          C TTA
        G
                    CCGTTTG ATG CCACTATCA
                    GGTAAAC TAT GGTGATAGT
                      _ TTAC
GAM87 LOC152185 3' ATAATGGTAATGCAAATCA 2498 C
                                           GT C
                    C GTTTGCAT TACCA TAT
                    A TAAACGTA ATGGT ATA
                    С
GAM88 DAAM2 3' ACCAACTGGGGAACTGTG 3560
                                          _ C
                    TACAGTTCCTT GTT GT
```

```
GTGTCAAGGGG CAA CA
```

T C

GAM88 FN14 3' TGACTAAGGAACTGCAGC 1703 TTC Α GCT CAGTTCCTTG GTCG CGA GTCAAGGAAT CAGT C GAM88 TM4SF2 3' TGTTTTAAAAAGGAACTGCAGC 1131 **GTTCGTC** Α GCT CAGTTCCTT **GACA** 111 111111111 Ш CGA GTCAAGGAA TTGT С AAATT GAM88 WNT3 3' GTCAGACAGCAAGGAACTGT 2159 C _ ACAGTTCCTTGTT GTC GAC TGTCAAGGAACGA CAG CTG Α GAM88 GLTP 3' GCCAACGAGGAACACAGC 1686 **ACA** C GCT GTTCCTTGTT GT CGA CAAGGAGCAA CG CA_ С GAM88 PRO0149 5' GTCCCAAAAAACTGTAGT 1473 CC TTCGTC GCTACAGTT TTG GAC 111111111 111 Ш TGATGTCAA AAC **CTG** AA C GAM89 LAMP2 3' AGTACTAAAATTAATGCA 1455 Т TGCATTAATTTT GTATT **ACGTAATTAAAA CATGA** T GAM89 DKFZp762K2015 3' AGAATCCATGCTAAAAATTAA 2949 Т TTAATTTTT GTAT GATTCT AATTAAAAA CGTA CTAAGA T C GAM89 FLJ10921 5' AGAATCAATACTACAACTGCA 1808 TTAATTTT TGCA **GTATTGATTCT** ACGT **CATAACTAAGA** CAACAT_ GAM89 LOC91752 3' AATCAATACAATATATGC 2778 **TAATTT** GCAT TTGTATTGATT Ш **AACATAACTAA** CGTA $\mathsf{TAT}_{_}$ GAM90 GLP1R 3' AGACACATGGCTATCCTAGAG 896 С Α TTTTG GATAGCCATGT TCT

	GAGAT CTATCGGTACA AGA
	C C
GAM90	FLJ10891 3' TACAGCCATTGCAAAACA 1806 A CA
	TGTTTTGCGAT GC TGTA
	ACAAAACGTTA CG ACAT C
GAM90	KIAA0781 3' CAAGGCCATCACAAAGCA 2793 C A A
	TGTTTTG GAT GCC TG
	ACGAAAC CTA CGG AC
	A C A
GAM90	KIAA1077 3' CATGGCCACCGCAGAACA 2963 ATA
	TGTTTTGCG GCCATG
	 ACAAGACGC CGGTAC
	CAC
GAM90	PELI2 3' ATACATGGGACTTCACAAACA 1950 T C TAG_
	TGTTT G GA CCATGTAT
	ACAAA C CT GGTACATA
0.4404	_ A TCAG
GAM91	GPRK6 3' GAGGAGCCACTGCCAAACT 898 CTA AGA AGTTTGGCAG GC TTC
	TCAAACCGTC CG GAG
	AC_ AG_
GAM91	WWP1 5' GTTTCTAGTGCCAAACTTA 3164 G C
	TAAGTTTGGCA CTAG AGAT
	ATTCAAACCGT GATC TTTG
GAM91	LOC144559 5' TGAATCTGCCAGCACCATAACT 3067 CA A
	T AAGTT TGG GCT GCAGATTCA
	TTCAA ACC CGA CGTCTAAGT
	T A_ C
GAM91	LOC200163 3' TGCTAATGCCAAACTTA 3440 GC
	TAAGTTTGGCA TAGCA
	 ATTCAAACCGT ATCGT
	A A
GAM91	LOC219918 5' TGAATCTGCCAGCACCAGAACT 3531 _ CA A
	T AAGT TTGG GCT GCAGATTCA

TTCA GACC CGA CGTCTAAGT

AAGTTT GC GCT GCAGATTCA

G A A

 $\mathsf{A}\quad \mathsf{A}_-\quad \mathsf{C}$

GAM91 LOC220071 5' TGAATCTGCCAGCAGCAGAACT 3603

Т

```
TTCAAG CG CGA CGTCTAAGT
```

AAC

GAM91 LOC255515 3' TGAATCTGCCAACACCAGAACT 3689 CAGCTA

T AAGT TTGG GCAGATTCA

TTCA GACC CGTCTAAGT

A ACAAC

GAM92 BCL11B 3' ACAAATATCATAAAAGGA 2020 CC G

TCCT TA GATATTTGT

AGGA AT CTATAAACA

AA A

GAM92 M17S2 5' GATACCTACAACTCCTAGGAAG 2213 C TAT A

A TC TCCTAGGA TTGTA TATC

AG AGGATCCT AACAT ATAG

A C CC

GAM92 CRFG 3' ATATTACAAATATTTTGAG 2775 CT

CTC AGGATATTTGTAATAT

GAG TTTTATAAACATTATA

GAM92 FLJ23360 5' ATATTGCATCCCTAGAGA 2030 ATATT

TC CTAGG TGTAATAT

AG GATCC ACGTTATA

A CT

GAM92 KIAA0349 3' ATATCACAGAGCCTGGGAG 3561 ATA A

CTCCTAGG TTTGT ATAT

GAGGGTCC AGACA TATA

G__ C

GAM92 PRO2325 5' GATATTAACAGTCATCCTAG 1836 AT _

CTAGGAT TTGT AATATC

GATCCTA GACA TTATAG

CT A

GAM92 SCYA16 3' ATATTTTCTCAATCTTAGGAGG 1130 ATTTGT

A TCCTCCTAGGAT AATAT

AGGAGGATTCTA TTATA

ACTCTT

GAM93 DJ-1 3' CGTTAGGAATCCATTCTCA 1375 ACTAAA

TGAGAAT ATTCCTAACG

ACTCTTA TAAGGATTGC

CC___

GAM93 FLJ10535 3' TAGGAATTTTTATTCCCA 1787 A CT

TG GAATA AAAATTCCTA

```
AC CTTAT TTTTAAGGAT
                     С
GAM93 FLJ10539 3' AGGATTTTAGTATCCTCA 1788
                                            Т
                                        Α
                     TGAG ATACTAAAAT CCT
                     ACTC TATGATTTTA GGA
                      С
GAM93 PIB5PA 3' TTAGGAATTAAATTCTC
                                2739
                                        ACTAA
                     GAGAAT AATTCCTAA
                     CTCTTA TTAAGGATT
                       AA
GAM93 LOC149351 3' AGGAGTTTAGTATCCTTA 3130
                                             Α
                     TGAG ATACTAAA TTCCT
                     ATTC TATGATTT GAGGA
                      C
GAM93 LOC157858 5' AGGGGAGTGTTCTCA
                                  3384
                                          AAAA
                     TGAGAATACT TTCCT
                     ACTCTTGTGA GGGGA
GAM94 DLG5
            5' TGATACAGCACAATAACT 3265
                                        CCAC
                                               С
                     AGTTA GTGCTGTA CA
                     TCAAT CACGACAT GT
                       AA
GAM94 DVL3
           3' CAATAAATGGTAGCTATTA 1112
                                           CG C
                     TAATAGTTACCA TG TG
                     ATTATCGATGGT AT AC
                         AA A
                                           CAC C
GAM94 ENPP3 3' GTACACACAGTGACTATTA 1173
                     TAATAGTTAC GTG TGTAC
                     ATTATCAGTG CAC ACATG
GAM94 FANCF 3' TGGTACAACCCAGGGGTAAACT 1998
                                            _ ACGTGC
        ATTA
                       TAATAGTT ACC
                                    TGTACCA
                     ||||||
                     ATTATCAA TGG
                                  ACATGGT
                        A GGACCCA
GAM94 PCDH11X 3' ACAGCACACAAGTGGCTATTG 2298
                                             CAC_
                     TAATAGTTAC GTGCTGT
                     GTTATCGGTG CACGACA
                         AACA
GAM94 PCDH11X 3' ACAGCACACAAGTGGCTATTG 2300
                                             CAC_
                     TAATAGTTAC GTGCTGT
```

```
AACA
GAM94 PCDH11Y 3' ACAGCACACAAGTGGCTATTG 2302
                                             CAC
                    TAATAGTTAC GTGCTGT
                     GTTATCGGTG CACGACA
                        AACA
GAM94 FLJ10539 3' TACAGTATGACAACTATT 1789
                                         ACCA
                    AATAGTT CGTGCTGTA
                     TTATCAA GTATGACAT
                       CA
GAM94 FLJ10898 3' TAGTCATTCGTGGTAACTA 2528
                                           T____
                    TAGTTACCACG GCTG
                    ATCAATGGTGC TGAT
                         TTAC
GAM94 KIAA0680 3' TGGTACAGTATAGTACCATTA 1530
                                         A T CAC
                    TAAT GT AC GTGCTGTACCA
                    ATTA CA TG TATGACATGGT
                      C _ A__
GAM94 KIAA1804 3' GCAGTACAGTACTATTA
                                 2868
                                         T CAC
                    TAATAGT AC GTGCTGT
                     ATTATCA TG CATGACG
                       _ A__
            3' TAGTAGTATGTAACTATTA 1677
GAM94 MO25
                                          C_ G
                    TAATAGTTAC AC TGCTG
                     ATTATCAATG TG ATGAT
                        TA
                                         СТ
GAM94 RAB33B 3' ACAGCTGTAGTAACTAT
                                 2190
                    ATAGTTAC ACG GCTGT
                    TATCAATG TGT CGACA
                        Α _
GAM94 RoXaN 3' TGGTACAGCACATGTGAGC 2128
                                         AC C__
                     GTT CA GTGCTGTACCA
                     CGA GT CACGACATGGT
                      GT ACA
GAM95 KIF13A 3' ACCGCAACAACTTGGTAGGA 1979
                                        ATAG AT
                    TCC TAC AGTTGTTGCGGT
                     AGG ATG TCAACAACGCCA
                        _ GT
GAM95 LOXL3
            3' ACTCATCAGACCATGCACTATG 2264
                                           A A GT_ C
```

TCCATAGT CAT GTT TG GGT

GA

GTTATCGGTG CACGACA

```
C C ACT _
GAM95 DKFZp547I014 5' CAGCTAACAATGTACTACAGA 1901
                                             CA A _
                     TC TAGTACAT GTT GTTG
                     AG ATCATGTA CAA CGAC
                      AC
                           A T
GAM95 Spir-1 3' ACCATGAACTCGTACTATG 2699
                                          AT GTTGC
                     CATAGTAC AGTT GGT
                     GTATCATG TCAA CCA
                        C GTA
GAM96 GCLC
            3' AATTGTACAATACTTGCATTCC 833
                                          CT___ C
                     GGA AGTAT GTACAATT
                     CCT TCATA CATGTTAA
                      TACGT A
GAM96 FLJ21324 5' AATTGTTGCCTAGTCCTGC 3513
                                            TAT T
                     GTAGGACTAG CG ACAATT
                     CGTCCTGATC GT TGTTAA
                         C__ _
GAM96 KIAA0193 3' AATTGTGATGTCCTAGTCCTAC 1543
                                              T CG
                     GTAGGACTAG AT TACAATT
                     CATCCTGATC TG GTGTTAA
                         C TA
GAM96 LOC91097 3' AATTGTTGCCTAGTCCTGC 2705
                                             TAT T
                     GTAGGACTAG CG ACAATT
                     CGTCCTGATC GT TGTTAA
                         C__ _
GAM97 ADAMTS5 3' TTCAATAGATACCACGAA 1353
                                             GG A
                     TTTGTGGTATT AT GAA
                     AAGCACCATAG TA CTT
                          A_A
GAM97 BCRP2 3' TTCTATCCAACATTCAA
                                 2633
                                       T A
                     TTG GGT TTGGATAGAA
                     111 111 111111111
                     AAC TTA AACCTATCTT
                      _ C
GAM97 IL13RA1 3' TCTACTAAAACTACAAA
                                 835
                                         A A
                     TTTGTGGT TTGG TAGA
                     AAACATCA AATC ATCT
                        Α
GAM97 IL1A
           3' TCTACCCATATTACAGA
                                2634
                                         ΤA
```

TTTGTGGTAT GG TAGA

AGGTATCA GTA CAG AC TCA

```
AGACATTATA CC ATCT
                         C _
GAM97 ISL1 3' TCTATTTTGCCACAAG
                                      TT
                              906
                    TTTGTGGTA GGATAGA
                    GAACACCGT TTTATCT
GAM97 MITF
           3' TTCTATTTTACAACTACAAA 721
                                        ATT_
                    TTTGTGGT GGATAGAA
                    AAACATCA TTTATCTT
                       ACAT
GAM97 NCF2
            3' TTCTGTGTCATACCACAA 742
                                        Τ_
                    TTGTGGTAT GG ATAGAA
                    AACACCATA CT TGTCTT
                        G
GAM97 NEDD4L 3' TTCTACTCAACTACAAA 1618
                                        AT GA
                    TTTGTGGT TG TAGAA
                    AAACATCA AC ATCTT
                       __ TC
GAM97 NR3C1 3' TTCTATCCTACAACAAG 717
                                       G TT
                    TTTGT GTA GGATAGAA
                     GAACA CAT CCTATCTT
                      Α ___
GAM97 PDK4
            3' TTCTATTTTCCCCACAAA 3733
                                        TATT
                    TTTGTGG GGATAGAA
                     AAACACC TTTATCTT
                       CCT_
GAM97 PSEN1 3' TTCTACTTTGCCACAGA
                                         TT A
                               1393
                    TTTGTGGTA GG TAGAA
                    AGACACCGT TC ATCTT
                        T_ _
GAM97 RAG1
            3' TTCTTTCCACCACAAA
                               746
                                       ATT T
                    TTTGTGGT GGA AGAA
                     AAACACCA CCT TCTT
                          _ T
GAM97 SYNGR1 3' TTCTGTGCCCACCACAAG 1148
                                          ATT _
                    TTTGTGGT GG ATAGAA
                     GAACACCA CC TGTCTT
                        C__ G
GAM97 TOX
           5' TTCTTAAACAAACCACAAA 1534
                                        A GAT_
```

TTTGTGGT TTG AGAA

```
AAACACCA AAC TCTT
                        _ AAAT
GAM97 TRPC6 3' TTCTATCCTTCTACCCAAA 1135 T TT_
                     TTTG GGTA GGATAGAA
                     AAAC CCAT CCTATCTT
                      _ CTT
GAM97 AF9Q34 3' TTCTACACACTCAGCCACAAA 2258
                                           AT__ GA
                     TTTGTGGT TG TAGAA
                     AAACACCG AC ATCTT
                        ACTC AC
GAM97 C1QR1 3' TTCCATCCTCATCACAAG 1402
                                         ATT A
                     TTTGTGGT GGAT GAA
                     GAACACTA CCTA CTT
                        CT C
GAM97 FLJ10193 3' TCTGACAGATACCACGAA 1775
                                           GGA
                     TTTGTGGTATT TAGA
                     AAGCACCATAG GTCT
                         ACA
GAM97 FLJ10989 3' CTATTTACTGATCACAAA 1810
                                         ΑT
                     TTTGTGGT TGGATAG
                     AAACACTA ATTTATC
                        GTC
GAM97 FLJ20700 3' TTCTACCAAAACTACAAA 1767
                                         A A
                     TTTGTGGT TTGG TAGAA
                     AAACATCA AACC ATCTT
GAM97 FLJ31101 3' TTCTATCTAGCACAA
                                1772
                                       GTA
                     TTGTG TTGGATAGAA
                     AACAC GATCTATCTT
GAM97 KIAA0252 3' TCTACTAAAACTACAAA 2638
                                         A A
                     TTTGTGGT TTGG TAGA
                     AAACATCA AATC ATCT
                        Α _
GAM97 KIAA0416 3' TCATTTCAAACCACAAA 1638
                                         A TA
                     TTTGTGGT TTGGA GA
                     AAACACCA AACTT CT
                        _ TA
GAM97 KIAA0445 5' TCTACTAAAACTACAAA 1519
                                         A A
                     TTTGTGGT TTGG TAGA
```

```
AAACATCA AATC ATCT
                         Α _
GAM97 KIAA0493 5' TTCTACTTCCACCACAAG 2683
                                             ATT __
                      TTTGTGGT GGA TAGAA
                      GAACACCA CCT ATCTT
                          __ TC
GAM97 KIAA0753 3' TCTATTTCATACCACAAA 1553
                                             TG
                      TTTGTGGTAT GATAGA
                      AAACACCATA TTATCT
                          CT
GAM97 KIAA0781 3' TTCTGCCCCACCACAAA
                                    2794
                                            ATT A
                      TTTGTGGT GG TAGAA
                      AAACACCA CC GTCTT
                         CC
GAM97 KIAA0825 3' TTCTATCTAACACATAA
                                   2589
                                          GTA
                      TTGTG TTGGATAGAA
                      AATAC AATCTATCTT
                        AC_
GAM97 KIAA0831 3' TTCTATCCGGTAGTCACAAA 1590
                      TTTGTGG TATTGGATAGAA
                      AAACACT ATGGCCTATCTT
GAM97 KIAA1172 3' TTCTATTTAAAAATAGCCACAA 2897
                                               A___
         Α
                      TTTGTGGT TTGGATAGAA
                      AAACACCG
                                AATTTATCTT
                         ATAAA
GAM97 KR18
            3' TTCTATCCAATTTGTGAA 2325
                                         TG T
                      TTTG G ATTGGATAGAA
                      AAGT T TAACCTATCTT
                        GT_
GAM97 MAPK13 3' TCTAACGAATTACCACAAA 953
                                              __ GA
                      TTTGTGGTA TTG TAGA
                      111111111 111 1111
                      AAACACCAT AGC ATCT
                          \mathsf{TA} \ \mathsf{A}_{\_}
GAM97 MGC11386 3' TCTACTAAAACTACAAA
                                    2296
                                             A A
                      TTTGTGGT TTGG TAGA
                      AAACATCA AATC ATCT
GAM97 PRO0641 3' TCTGCCAATAACCACAAA 1477
                                                Α
```

TTTGTGGT ATTGG TAGA

11111111 11111 1111

```
AAACACCA TAACC GTCT
                                           TT A
GAM97 PRO0902 3' TCTACCTTTGCCACAAG
                                  2358
                     TTTGTGGTA GG TAGA
                     GAACACCGT CC ATCT
                         TT _
GAM97 SMAP-5 3' TCTACTAAAACTACAAA
                                 2168
                                          A A
                     TTTGTGGT TTGG TAGA
                     AAACATCA AATC ATCT
GAM97 SPRY4 3' TCTACTAAACTACAAA
                                 2177
                                         A A
                     TTTGTGGT TTGG TAGA
                     AAACATCA AATC ATCT
GAM97 USP24 3' TCTACGATGCTACAAA
                                 3512
                                           GA
                     TTTGTGGTATTG TAGA
                     AAACATCGTAGC ATCT
GAM97 ZNF304 3' TTCATTGTATACCACAA
                                1921
                                          TG A
                     TTGTGGTAT GAT GAA
                     AACACCATA TTA CTT
                         TG
GAM97 LOC121344 3' TCTACCTCAGTTTGCCACAAA 2990
                                              TT____ A
                     TTTGTGGTA GG TAGA
                     AAACACCGT
                                CC ATCT
                         TTGACT
                                         G ATT
GAM97 LOC144266 5' TTCTGTCCCACCAGAAA
                                   3065
                     TTT TGGT GGATAGAA
                     AAA ACCA CCTGTCTT
                      G C__
GAM97 LOC145241 3' CTTACGTCAGTACCACAAA 2640
                                              AT__
                     TTTGTGGTATTGG AG
                     AAACACCATGACT TC
                          GCAT
                                             TT __
GAM97 LOC148545 5' TCTACCTCTTCTGCCACAAA 3120
                     TTTGTGGTA GGA TAGA
                     111111111 111 1111
                     AAACACCGT TCT ATCT
                         CT CC
```

GAM97 LOC149073 5' TTCTGATGACAAACCACAAA 3305

TTTGTGGT TTG TAGAA

A GA

```
AAACACCA AAC GTCTT
                        _ AGTA
GAM97 LOC149448 3' CTGTAACAAAATACCACAAA 3309
                                             GG
                     TTTGTGGTATT ATAG
                     AAACACCATAA TGTC
                         AACAA
GAM97 LOC149579 5' TCTACTAAAACTACAAA
                                  2907
                                          A A
                     TTTGTGGT TTGG TAGA
                     AAACATCA AATC ATCT
GAM97 LOC152641 5' TTCTAGGGAAACCACAAA 3173
                                           A GGA
                     TTTGTGGT TT TAGAA
                     AAACACCA AG ATCTT
                        A GG_
GAM97 LOC169966 3' TTCTATCATCATCTACTACAAA 3253
                                             TTG
                     TTTGTGGTA GATAGAA
                     AAACATCAT
                                CTATCTT
                        CTACTA
GAM97 LOC222234 3' TCTGTAACAAATTACCACAAA 3647
                                             __ G_
                     TTTGTGGTA TTG ATAGA
                     AAACACCAT AAC TGTCT
                        TA AA
GAM97 LOC254058 3' TTCTAACCACCACAAG
                                          ATT A
                                  3735
                     TTTGTGGT GG TAGAA
                     GAACACCA CC ATCTT
GAM97 LOC51110 3' TTCTGGTATACCACAAA 1657
                                           TGGA
                     TTTGTGGTAT TAGAA
                     AAACACCATA GTCTT
                         TG__
GAM97 LOC51292 3' TCTATCTGCACACACAAA 1698
                                          _ ATT
                     TTTGTG GT GGATAGA
                     AAACAC CA TCTATCT
                       A CG
GAM97 LOC92573 5' TTCTGGCCACCACAGA
                                  2870
                                          ATT A
                     TTTGTGGT GG TAGAA
                     AGACACCA CC GTCTT
                         __ G
                                          A AGA_
GAM98 AVP
           5' AGCTCCTAGGCCAGGGCCTGTC 752
                     GACAG CC CCTAGGAGCT
```

```
C GACC
GAM98 HTRA3 3' CTGCAGGTCTGGGCTGCCA 3457 A A A
                    TG CAG CCAGACCT GG
                    AC GTC GGTCTGGA TC
                     CG
                           CG
GAM98 LGALS3BP 3' AGCCCCTGGTCAGTCTG
                                 2851
                                        CA T A
                    CAGAC GACC AGG GCT
                    GTCTG CTGG TCC CGA
                      A_ _ C
GAM98 MAD2L1 3' TAGCTCCTTTTGACCTTCA 921 C AC CCT
                    TGA AG CAGA AGGAGCTA
                    ACT TC GTTT TCCTCGAT
                     CA
GAM98 PYGM 5' TAGCTCCCTGAGCTGCCA 1230 A AC ACCTA
                    TG CAG CAG GGAGCTA
                    AC GTC GTC CCTCGAT
                     C GA ___
GAM98 SLC35A3 3' TTCTGGGTCTGATCTGTCA 1418
                                         C
                    TGACAGA CAGACCTAGGA
                    ACTGTCT GTCTGGGTCTT
GAM98 ATPAF1 3' ATAGCTCCCAAATGATGAGTTT 2583
                                          _ GACCTA_
        GTCA
                      TGACAGAC CA
                                  GGAGCTAT
                    ACTGTTTG GT CCTCGATA
                       A AGTAAAC
GAM98 C7orf13 3' CTTAAGTCTGGTCCCTCA 2265
                                           С
                                      CA
                    TGA GACCAGAC TAGG
                    ACT CTGGTCTG ATTC
                         Α
                     CC
           3' CTGCCAAGCCTGGTCTGTCA 1407
GAM98 CBLC
                                          AC A _
                    TGACAGACCAG CT GG AG
                    ACTGTCTGGTC GA CC TC
                        C_A G
GAM98 FLJ10241 3' AGCTCCTGTCACCCTGTCA 1776
                                        ACCA CT
                    TGACAG GAC AGGAGCT
                    ACTGTC CTG TCCTCGA
                      CCA_ _
GAM98 FLJ20651 3' CCAAGCTTGGTCTGTCA
                               1761
                                         AC A
                    TGACAGACCAG CT GG
```

CTGTC GG GGATCCTCGA

```
C_ A
GAM98 KIAA1203 3' CTTCAGATCCTGTCTGTCA 2922
                                         CA C A
                    TGACAGAC GA CT GGAG
                    ACTGTCTG CT GA CTTC
                       TC A
GAM98 PL6
           3' AGCTCCTGGGCCGGCCCTCA 1348
                                        CAGA AGA
                    TGA CC CCTAGGAGCT
                    ACT GG GGGTCCTCGA
                     CCC CC
GAM98 SRCRB4D 3' AGCTCCTACCTTGGGCCCTCA 2386
                                          CAGA ACC
                    TGA CCAG TAGGAGCT
                    ACT GGTT ATCCTCGA
                     CCCG CC
                                           C AGGA
GAM98 SYNPO2 3' AGCAGCTCTGGTCTGTCA 2928
                    TGACAGACCAGA CT GCT
                    ACTGTCTGGTCT GA CGA
                         C __
GAM98 LOC145858 5' CCTAGGTCTGGCCTTCA
                                        CA
                                  3085
                    TGA AG CCAGACCTAGG
                    ACT TC GGTCTGGATCC
                     С
GAM98 LOC151162 5' AGCTCCTAGAGGCTGCTCA 3338
                                         A AGAC
                    TGA CAG CC CTAGGAGCT
                    ACT GTC GG GATCCTCGA
                     C _ A_
GAM98 LOC196410 5' AGCTCAGAGCTGGTCTGCCA 3411
                                             AC AG
                    TG CAGACCAG CT GAGCT
                    AC GTCTGGTC GA CTCGA
                     С
                         __ GA
GAM98 LOC203339 5' AGCTCCTAGGAATTCTCTCA 3489
                                         C CCAGA
                    TGA AGA CCTAGGAGCT
                    ACT TCT GGATCCTCGA
                     C TAA
GAM98 LOC203377 5' AGCTCCTAGAGGCTGCTCA 3490
                                         _ A AGAC
                    TGA CAG CC CTAGGAGCT
                    ACT GTC GG GATCCTCGA
                     C _ A__
GAM99
     SEL1L 3' CAAGAAAATTTAAAACGATCCC 1179
                                        AA
                                             TT
                     TTG ATTGTTTT ATTTTCTTG
        AA
```

ACTGTCTGGTT GA CC

```
AAC TAGCAAAA TAAAAGAAC
                      CC
                           TT
GAM99 DKFZP564O1863 3' AAAGTAAATACAATTTCAA 2826
                                                TT
                     TTGAAATTGT TTTATTTT
                     AACTTTAACA AAATGAAA
                         Т
GAM99 LOC129446 3' CAAGAAAAATGAGAACATTTTC 3042
                                                 TΑ
         AΑ
                      TTGAAA TGTTTTT TTTTCTTG
                     AACTTT ACAAGAG AAAAGAAC
                        Т
                           TΑ
GAM100 CYP19
             3' AAAAAGCAGAGGCCAAGAGTTT 705
                                            ATGAT
         G
                      CAAA GCCTCTGC TTTT
                     GTTT CGGAGACG AAAA
                       GAGAAC
                                Α
GAM100 CYP19 3' AAAAAGCAGAGGCCAAGAGTTT 2185
                                            ATGAT
                                                     C
         G
                      CAAA GCCTCTGC TTTT
                     GTTT CGGAGACG AAAA
                       GAGAAC
                               Α
GAM100 F8
           3' AAAGGCAAATCATTTGGA 707
                                      A GCCTC
                     TCCAAA TGAT TGCCTTT
                     AGGTTT ACTA ACGGAAA
                        _ A_
GAM100 MSR1
             3' AAAAGGCAAAACCTTACCTTGG 2453
                                            AA TGCCTC
                      TCCAA TGA
         Α
                                 TGCCTTTT
                     AGGTT ATT
                               ACGGAAAA
                       CC CCAAA_
             3' AAAAGGCAAAACCTTACCTTGG 2454
                                            AA TGCCTC
GAM100 MSR1
         Α
                      TCCAA TGA TGCCTTTT
                     11111 111
                          | | | | | | | | | |
                     AGGTT ATT
                                ACGGAAAA
                       CC CCAAA
GAM100 PCDHB16 3' AAAAGGCAAAGGTATTAT 1931
                                            С
                     ATGATGCCT TGCCTTTT
                     TATTATGGA ACGGAAAA
                         Α
GAM100 QPCT
             3' AAAAGTCAAGGCATCATTT 1428
                                            C
                     AAATGATGCCT TG CTTTT
                     TTTACTACGGA AC GAAAA
                          _ T
GAM100 TWIST 3' AAAGGAAAGGCATCACTATGGA 750
                                           AAA
                                                  CTG
                     TCCA TGATGCCT CCTTT
```

```
ATC
                            AA
GAM100 ATP9A 3' AAAGGCAGAGGCATCTTTCGGA 2617 A T
                    TCC AAA GATGCCTCTGCCTTT
                    AGG TTT CTACGGAGACGGAAA
GAM100 CALN1 3' CAGAAATATCATCTTGGA 2207
                                           CC
                    TCCAA ATGATG TCTG
                    AGGTT TACTAT AGAC
                      С
                         AA
GAM100 FLJ23277 3' AAAAGGCAGAAATCCATTCA 2238
                                         _ CC__
                    TGA TG TCTGCCTTTT
                    ACT AC AGACGGAAAA
                     T CTAA
GAM100 KIAA0992 3' AAAAGGCAGAAACATACCTTTG 1661
                                         ATG CC
                    CAAA ATG TCTGCCTTTT
                    GTTT TAC AGACGGAAAA
                      CCA AA
GAM100 KIAA1045 3' AAAAGGCAGAACAGTTTTG 2906
                                          GA CC
                    CAAAAT TG TCTGCCTTTT
                    GTTTTG AC AGACGGAAAA
                       __ A_
GAM100 KIAA1056 3' AAAGGCAGAGAGGCCAGGA 1575
                                          AAAA AT
                    TCC TG GCCTCT GCCTTT
                    AGG AC CGGAGA CGGAAA
                             GΑ
GAM100 KIAA1323 3' AGGGGAGAGGCACATTTT 2646
                                             G
                    AAAATG TGCCTCT CCTT
                    TTTTAC ACGGAGA GGGA
                          G
GAM100 LMOD1 3' AGGTGAAAGGCATCTTTCTG 1409
                                         ΑТ
                                              CT
                    CA AA GATGCCT GCCT
                    GT TT CTACGGA TGGA
                     СТ
                           AAG
GAM100 RNF32
            3' AAAAAGTTTACCATCATTTTGG 2172
                                             CCTCT C
        Α
                     TCCAAAATGATG GC TTTT
                     AGGTTTTACTAC TG AAAA
                         CATT_ A
GAM100 SS-56 3' AAAAAGCAGAGGCCCAGTCA 2535
                                              С
                    TGAT GCCTCTGC TTTT
```

AGGT ACTACGGA GGAAA

```
ACTG CGGAGACG AAAA
                      ACC
                             Α
                                             CTCT _
GAM100 LOC122792 3' AAAAGTGCCTTGCATCATTT 2518
                     AAATGATGC GC CTTTT
                     TTTACTACG CG GAAAA
                        TTC T
GAM100 LOC146512 3' GCAGTGCAAACATCATTTTGGA 3094
                                                CCT
                     TCCAAAATGATG CTGC
                     | | | | |
                     AGGTTTTACTAC
                                   GACG
                         AAACGT
GAM100 LOC201633 3' CAGAGGCATCTTCTGGA
                                  3483
                                          A T
                     TCCA AA GATGCCTCTG
                     AGGT TT CTACGGAGAC
GAM100 LOC2021263' AAAAAGCAAGTATCATTTGGA 3486
                                            A CTC C
                     TCCAAA TGATGC TGC TTTT
                     AGGTTT ACTATG ACG AAAA
                          A__ A
GAM100 LOC221755 3' CAGAGGCGCCATCTTGGA 3563
                                           A A
                     TCCAA ATG TGCCTCTG
                     AGGTT TAC GCGGAGAC
                       CC
GAM100 LOC257334 3' GCAGAGGCACCATCTTGG 3734
                                           A A
                     CCAA ATG TGCCTCTGC
                     GGTT TAC ACGGAGACG
                      CC
GAM101 ANGPT1 3' ACTGAAACATGCTTACCAGATT 804
                                            CATCTC
        CA
                      TGAATC TATGTTTCAGT
                     ACTTAG GTACAAAGTCA
                       ACCATTC
GAM101 GPR61
             5' ACTGAAATTCAGAAGATTCAC 3123
                                           CATC AT
                     GTGAATC TCT GTTTCAGT
                     CACTTAG AGA TAAAGTCA
                        A___CT
GAM101 PPP1R12B 3' ACTGAAACCCGGAACAGATTC 2228
                                             CATC AT
                     GAATC TCT GTTTCAGT
                     CTTAG AGG CAAAGTCA
                       ACA_ CC
GAM101 TRIM9 3' ACTTCTATATAGAGATAGACTT 1610
                                          A C
                                                 TTC
         AC
                      GTGA TC ATCTCTATGT AGT
```

```
CA
                             TCT
GAM101 YWHAE 3' ACTGAAACACAGCATGGAATTA 1329
                                           A CT A
                     TGA TCCAT CT TGTTTCAGT
                     ATT AGGTA GA ACAAAGTCA
                      A C C
GAM101 AKAP9 3' ACTGAAATAAAAATGACTTCAC 1242
                                           TC CTCTA
                     GTGAA CAT TGTTTCAGT
                     CACTT GTA ATAAAGTCA
                       CA AAA
GAM101 LOC166824 3' ACTGAAACATAATCAATGGATT 3259
                                              CTC
        CA
                      TGAATCCAT TATGTTTCAGT
                     ACTTAGGTA ATACAAAGTCA
                        ACTA
GAM101 LOC254835 3' TGAAGCAAGAGACAGACCCAC 3722
                                            AA CA A
                     GTG TC TCTCT TGTTTCA
                     CAC AG AGAGA ACGAAGT
                      CC AC
GAM102 PNPASE 3' CTGAGGCAGAAGAATCACTTC 2900
                                              GATG G
                     GAAGTGATTCTTT GT TCAG
                     CTTCACTAAGAAG CG AGTC
                          A G
GAM102 SEC24D 3' CAGTATCAATAAATCACTTC 1559
                                                G
                                           CT
                     GAAGTGATT TTGATG TG
                     CTTCACTAA AACTAT AC
                        ΑT
                            G
                                             CT GAT T
GAM102 LOC131000 3' CTGACCTTGAAATAAATCACTT 3037
        С
                     GAAGTGATT TT GG GTCAG
                     CTTCACTAA AA TC CAGTC
                        AT AGT
GAM102 LOC151658 5' GAAGTCTCAAAGCATCACTTC 3349
                                             T TTG
                     GAAGTGAT CTTTGA GG TC
                     CTTCACTA GAAACT CT AG
                        C GA
GAM102 LOC257428 3' GCACTTTCAAAGAATCATCC 3649 A
                                               Т
                     A GTGATTCTTTGA GGTGT
                     C TACTAAGAAACT TCACG
                     С
                           Т
GAM103 CARD15 3' GTAAATAATCAGAGGGGAATAA 1983
                                            GGATC
        Α
                     TTTGTT T CTGATTATTTAC
```

CATT AG TAGAGATATA TCA

```
GG GA
                                             ATTC A
GAM103 CLCN4 3' AAATAACAGAAAACCCAGCAAA 861
                     TTTGTTGG CTG TTATTT
                     AAACGACC GAC AATAAA
                        CAAAA
GAM103 FGF2
            3' TAAATAATTTTATAATTCAACA 885
                                            CCT
                      TTTGTTGGATT GATTATTTA
         AΑ
                     AAACAACTTAA TTAATAAAT
                          TATT
GAM103 ZNF135 3' TGGTGAGAAACCCAACAAA 1022
                                            ACG
                     TTTGTTGG TT CT ATTA
                     AAACAACC AA GA TGGT
                        CAG
GAM103 SEC15B 3' AATTAAAAATCCAACAAA 2757
                                            CC
                     TTTGTTGGATT TGATT
                     AAACAACCTAA ATTAA
                          AA
GAM103 ZNF334 3' AAGTAATAAATTCCAACAAA 1780
                                            TTCCTG
                     TTTGTTGGA
                                ATTATTT
                     AAACAACCT
                                TAATGAA
                         TAAA
GAM103 LOC158954 3' TGGTGAGAAATCCAACAAA 2567
                                              CG
                     TTTGTTGGATT CT ATTA
                     AAACAACCTAA GA TGGT
                          AG
                                               C _TG
GAM103 LOC219686 3' GTAATTGGAAAAAATCCAATAA 3500
         Α
                      TTTGTTGGATT C ATTAT
                     AAATAACCTAA G TAATG
                          AAAA GT
GAM103 LOC221510 3' AAATAATCAAAACCCAACA 3508
                                            A CC
                     TGTTGG TT TGATTATTT
                     ACAACC AA ACTAATAAA
                        CA
GAM104 PLN
            3' TAATAGCCTACTATTGACC 947
                                       C
                     GG CAATAGTAG CTATTA
                     11 111111111 111111
                     CC GTTATCATC GATAAT
                      Α
                           С
                                         CA T
GAM104 PRRG1
             3' GTAATAGCTCTATCAGCC 789
```

GGC ATAG AGCTATTAC

AAATAA G GACTAATAAATG

```
CCG TATC TCGATAATG
                      AC _
GAM104 LOC149320 3' GCGGCAGCTACTACTGCC 2892
                                        CAA
                                               ATTA
                    GGC TAGTAGCT CCGT
                    CCG ATCATCGA GGCG
                           C___
                     TC
GAM104 LOC163782 5' ACGGATGCCACTATTGGGC 3234
                                         G
                                             A TATTA
                    G CCAATAGT GC CCGT
                    C GGTTATCA CG GGCA
                         C TA
GAM105 FLJ12668 3' ACTTGAGCAAATAATTGGGATG 2123
                                              CCAA AG
        Α
                     TTATCCCAATTA CT AAGT
                    AGTAGGGTTAAT GA TTCA
                         AAAC G_
                                           A AAC
GAM105 KIAA0016 3' ACTTTTAAGGTAACTGGGATGA 1542
                    TTATCCCA TTACC TAGAAGT
                    AGTAGGGT AATGG ATTTTCA
                       C A__
GAM105 ZAK
           3' ACTTCCAGTTTTTGGATTGGGA 1708
                                          ACC_ A
                    TCCCAATT AACT GAAGT
                    AGGGTTAG TTGA CTTCA
                       GTTT C
GAM105 LOC58489 3' TGGTTGGTAATGGAATAA 2952
                                         CA
                    TTAT CCA TTACCAACTA
                    AATA GGT AATGGTTGGT
                                         CG A
GAM106 IL1R1 3' AGAACATCCTCCAATTCC 782
                    GGAATTGGAGG ATG TCT
                    CCTTAACCTCC TAC AGA
GAM106 SUFU
            3' ATCAGTTCGCCTCCATTCC 1668
                                        Τ
                    GGAAT GGAGGCGA TGAT
                    CCTTA CCTCCGCT ACTA
                          TG
GAM106 CGRP-RCP 5' AAGATCATCGCACCCCC 1503
                                        AATT AG
                    GG GG GCGATGATCTT
                    CC CC CGCTACTAGAA
                       _ CA
                                           A C \_
GAM106 LOC152348 5' ATCAGTCACCACCAATTCC 3358
                    GGAATTGG GG GA TGAT
```

```
CCTTAACC CC CT ACTA
                        AAG
GAM106 LOC158219 3' ATCATTGCCCCCAACTCC 3214
                                          A A
                     GGA TTGG GGCGATGAT
                     CCT AACC CCGTTACTA
                      C
GAM106 LOC255177 3' AGAATCACCTCTAATCC
                                    3711
                                         A C GA
                     GGA TTGGAGG GAT TCT
                     CCT AATCTCC CTA AGA
                          Α
GAM106 LOC90522 3' AGGCACCGCCTCCATCC 2651
                                          ΑT
                                               A A
                     GGA TGGAGGCG TG TCT
                     CCT ACCTCCGC AC GGA
                           С
GAM107 CEACAM4 3' CTCTGAGTCCTGAGGAG
                                    860
                                          CC TCGT
                     CTCC TAG ACTCAGAG
                     GAGG GTC TGAGTCTC
                       A_ C___
GAM107 MGC11115 3' CTCTGAGGCCCAGGGGAGC 2244
                                              AGTC A
                     GCTCCCCT GT CTCAGAG
                     CGAGGGGA CG GAGTCTC
                        CC__ _
GAM107 PRO2714 5' CTCTAAGCAACAAGGGGAGCG 1837
                                             A C ACTC
                     CGCTCCCCT GT GT AGAG
                     GCGAGGGGA CA CG TCTC
                         A A AA
                                             G C GTC
GAM107 LOC147057 3' CTCTGAGTATTGGGAAGAGAGG 3288
         С
                      GC CTC CCTA GTACTCAGAG
                     CG GAG GGGT TATGAGTCTC
                      GA AA __
GAM107 LOC147976 3' CTCTGGTGTGACTAAGGAAAG 3114
                                            CC _ T
                     CT CCT AGTCGTAC CAGAG
                     GA GGA TCAGTGTG GTCTC
                      AA A
GAM107 LOC57100 3' CTCTGAGTACCCTGGCGGGAGG 1917 G _ TC
         С
                      GC CTCCC CTAG GTACTCAGAG
                     CG GAGGG GGTC CATGAGTCTC
                      _{\scriptscriptstyle -} C C_{\scriptscriptstyle -}
GAM108 E2F3
            3' ACAAACCTCGAAACGAACAGTT 875
                                             TCA A A
```

TTAGCTGTTT TC AG TTTGT

AA

```
AATTGACAAG AG TC AAACA
                         CAA C C
GAM108 SCML1 3' ACAGAGAACCAAAACAGCTAA 1328
                                             CATCAAGA
                     TTAGCTGTTTT
                                 TTTGT
                     11111
                     AATCGACAAAA
                                  AGACA
                         CCAAG
GAM108 KIAA1468 3' ACAAATCCTACAGTCAATAGCT 3541
                                             TTCATCAA
        AA
                      TTAGCTGTT
                                 GATTTGT
                     AATCGATAA
                                CTAAACA
                        CTGACATC
GAM108 MGC16025 3' ACAAATCTCCAAGAAAACAGCT 2295
                                              ATCA
                     AGCTGTTTTC AGATTTGT
                     TCGACAAAAG TCTAAACA
                         AACC
GAM108 LOC148545 3' CTTGATAAAAACAACTAA 3119
                                         C C
                     TTAG TGTTTT ATCAAG
                     AATC ACAAAA TAGTTC
                      A A
GAM108 LOC163669 5' ACAAATCTTGACGAACAC 3233
                                         T A
                     GT TTC TCAAGATTTGT
                     CA AAG AGTTCTAAACA
                     CC
GAM108 LOC51652 3' ACAAATAAGGAAAACAGCT 1660
                                            ATCAAG
                     AGCTGTTTTC ATTTGT
                     TCGACAAAAG
                                 TAAACA
                         GAA
                                              Т
GAM109 CXCL13 3' GTTATTCAGTTATAAGTAATA 1299
                     TATTATTATAACTGA GTAAC
                     ATAATGAATATTGACT TATTG
GAM109 RASGRP1 3' ATCAGTGGCTTAAATAATA 1241
                                            TA
                     TATTATTTA ACTGAT
                     ATAATAAAT TGACTA
                        TCGG
GAM109 HTGN29 3' GGGTCATTATCACTTAAATAAT 1899
                                            TAAC TA
        Α
                     TATTATTTA TGATG ACCC
```

ATAATAAAT ACTAT TGGG

Α

AA

TC__ TAC

TTT TAACTGATGT CC

GAM109 KIAA1430 3' GGACCACATCAGTTGCAAA 3179

```
AAA GTTGACTACA GG
                      C
                           CCA
GAM109 KIAA1764 5' GCTTCAGTTATAAATAGTA 2850
                                              Т
                     TATTATTTATAACTGA GT
                     ATGATAAATATTGACT CG
                           Т
GAM109 ZAK
            3' TATCAGTTTCAAATAATA 2428
                                         ΑT
                     TATTATTT AACTGATG
                     ATAATAAA TTGACTAT
                        CT
GAM109 LOC151571 5' GGTTATATACATCATAAATGA 3348
                                             AACTG
                     TTATTTAT ATGTAACC
                     AGTAAATA
                              TATATTGG
                        CTACA
GAM109 LOC196989 3' GGGCACATAGAGCTATAAATAA 3470
                                               A G AA
                     TTATTTATA CT ATGT CC
                     AATAAATAT GA TACA GG
                        C GA CG
GAM109 LOC221431 3' TATATCAGGTCATAAATAATA 3553
                                              AA
                     TATTATTTAT CTGATGTA
                     ATAATAAATA GACTATAT
                         CTG
GAM110 COL12A1 3' AACCTCCTTGTTTTAGACAC 1102
                                            CTAGT
                     GTGTCTAA GGAGGTT
                     CACAGATT
                               CCTCCAA
                        TTGTT
GAM110 COL12A1 3' AACCTCCTTGTTTTAGACAC 2380
                                            CTAGT
                     GTGTCTAA GGAGGTT
                     CACAGATT
                               CCTCCAA
                        TTGTT
GAM110 FLJ25473 5' AACCTCCGAAAGCTCAGCACAC 2496
                                            _ AA_ AG
                     GTGT CT TGGAGGTT
                     CACA GA GCCTCCAA
                      C CTC AA
GAM111 ANK1
            5' CAGCCCCAGCTGCTCCTC 699
                                            A TC C A
                     GAGGAGGA TA GT GG GCTG
                     CTCCTCCT GT CG CC CGAC
                        C __ A C
GAM111 ANK1
            5' CAGCCCCAGCTGCTCCTC 1918
                                            A TC C A
                     GAGGAGGA TA GT GG GCTG
```

```
CTCCTCCT GT CG CC CGAC
                      C __ A C
GAM111 CDH5 3' CAGCCCAGCACCCCTTCCTCG 857 AATATC C A
                   CGAGGAGG GT GG GCTG
                   GCTCCTTC CG CC CGAC
                      CCCA A
GAM111 DSP 5' CAGCTCCGACGCAGCTCCTC 1110
                                       GAATAT
                   GAGGAG CGTCGGAGCTG
                   CTCCTC GCAGCCTCGAC
                     GAC
GAM111 GDF5 3' AGCCCACCATTTCTCCTC 755
                                       ATC C A
                   GAGGAGGAAT GT GG GCT
                   CTCCTCTTTA CACCCGA
                       С
GAM111 OGDH 3' CAGCTCTGGCCACAATCCTCC 3510
                                     ATATC
                   GGAGGA GTCGGAGCTG
                   CCTCCT CGGTCTCGAC
                     AACAC
GAM111 RFX2
           3' CAGCCCGGCCGCCCTCCTC 765
                                     AATATC A
                    CGAGGAGG GTCGG GCTG
        G
                   GCTCCTCC CGGCC CGAC
                      GCGGC C
GAM111 SET7 5' CAGCCCCGACTGCTCCTC 2153 A TC A
                   GAGGAGGA TA GTCGG GCTG
                   CTCCTCCT GT CAGCC CGAC
                      C __ C
GAM111 C17orf31 3' CAGCTCCCCTTCACCCCTCCT 1723 AATATCGTC
        TG
                    CGAGGAGG GGAGCTG
                   | | | | | | | |
                   GTTCCTCC
                             CCTCGAC
                      CCACTTCCC
GAM111 caspr5 5' CAGCTCCGAAGAATCCCCCG 2396 A A ATA G
                   CG GG GGA TC TCGGAGCTG
                   GC CC CCT AG AGCCTCGAC
                    _ _ A__ A
GAM111 caspr5 5' CAGCTCCGAAGAATCCCCCG 2462 A A ATA G
```

_ _ A__ A

GAM111 CECR2 5' AGCCCGCCCCCCCCCC 2192 AATATC T A

CGAGGAGG G CGG GCT

|||||||| | |||

CG GG GGA TC TCGGAGCTG

GC CC CCT AG AGCCTCGAC

```
GCTCCTCC
                               C GCC CGA
                        CC____ C
GAM111 DKFZP434P0111 3' CAGCCCGGCCCATTCCTCC 2790
                                                ATC A
                     GGAGGAAT GTCGG GCTG
                     CCTCCTTA CGGCC CGAC
                        CC C
GAM111 FLJ10634 3' CAGCTCCAGCCATCCACCCCTC 1791
                                           A AAT C C
                     GAGG GG AT GT GGAGCTG
                     CTCC CC TA CG CCTCGAC
                      ACC C A
GAM111 FLJ32334 3' CTCCAAAACGCTATTCCTTC 2483
                                           T C
                     GGAGGAATA CGT GGAG
                     CTTCCTTAT GCA CCTC
                        C AAA
GAM111 FLJ32894 3' CTCTGGTTTCCTCCTC
                                 2491
                                         TATCG
                     GAGGAGGAA TCGGAG
                     CTCCTCCTT GGTCTC
                        Т
GAM111 KIAA0711 5' AGTTGGACACCCCTCCTCG 1572
                                            AATATC G G
                     CGAGGAGG
                               GTC GA CT
                     GCTCCTCC
                               CAG TT GA
                        CCACA_ G _
GAM111 KIAA1649 3' CAGCTGGAAGACATTCCTCC 2245
                                            A G GG
                     GGAGGAAT TC TC AGCTG
                     CCTCCTTA AG AG TCGAC
                        CAG_
                                            A G GG
GAM111 KIAA1649 3' CAGCTGGAAGACATTCCTCC 2770
                     GGAGGAAT TC TC AGCTG
                     CCTCCTTA AG AG TCGAC
                        CAG
GAM111 MGC30052 3' AGTACATCATTCCTCCTC 2500
                                            ATC CGGA
                     GAGGAGGAAT GT GCT
                     CTCCTCCTTA CA TGA
                         CTA _
GAM111 MGC4737 3' CAGCCCCATCTCCTCCTC 2206
                                             ATATC C A
                     GAGGAGGA GT GG GCTG
                     CTCCTCCT TA CC CGAC
                        CCTC_ C _
GAM111 LOC115110 5' AGCCCCGGTTCCTCCCCG 2923
                                         Α
                                              ATCGT A
                    CG GGAGGAAT CGG GCT
```

```
GC CCTCCTTG GCC CGA
                       ____ C
                     С
                                            СС
GAM111 LOC123242 5' CAGCTCCACCATATTTCTCC 3029
                    GGAGGAATAT GT GGAGCTG
                    CCTCTTTATA CA CCTCGAC
                        C _
GAM111 LOC146237 3' CAGCTCTCACATTCCTTC 3282
                                          ATC C
                    GGAGGAAT GT GGAGCTG
                    CTTCCTTA CA TCTCGAC
                        С
GAM111 LOC147160 5' CAGCCCCACTCACTCCTTCTC 3291
                                            ATATC C A
                    GAGGAGGA GT GG GCTG
                    CTCTTCCT CA CC CGAC
                       CACT C
GAM111 LOC149670 5' CAGCCCTGCCACTCCTTCCTC 3138
                                           ATATC C A
                    GAGGA GGA GT GG GCTG
                    CTCCT CCT CG CC CGAC
                      T CAC__ T _
GAM111 LOC155072 3' CAGCTCCGACCACCATCCTC 3374
                                            AATATC
                    GAGGA GG GTCGGAGCTG
                    CTCCT CC CAGCCTCGAC
                      A ACAC
GAM111 LOC158828 3' CAGCCCCGGAGCCATTCCTCC 3227
                                             ATCG A
                    GGAGGAAT TCGG GCTG
                    CCTCCTTA GGCC CGAC
                       CCGA C
GAM111 LOC202868 3' CAGCTCCGACCACCATCCTC 3487
                                            AATATC
                    GAGGA GG GTCGGAGCTG
                    CTCCT CC CAGCCTCGAC
                      A ACAC
GAM111 LOC253001 5' CAGCTCCACCATATTTCTCC 3697
                                            СС
                    GGAGGAATAT GT GGAGCTG
                    CCTCTTTATA CA CCTCGAC
                        C _
GAM111 LOC253841 5' CAGCCCCAGCTGCTCCTC 3704
                                             A TC C A
                    GAGGAGGA TA GT GG GCTG
                    CTCCTCCT GT CG CC CGAC
                       C __ A C
GAM111 LOC51177 5' CAGCTCCGACGCCCTCCCG 1676 A AATAT
                    CG GGAGG CGTCGGAGCTG
```

```
GC CCTCC GCAGCCTCGAC
                        C__
GAM111 LOC91408 3' CAGCTTTTGGTAATATTCTTCC 2735
                                               CG
         TC
                      GAGGAGGAATAT TCGGA GCTG
                     CTCCTTCTTATA GGTTT CGAC
                          AΤ
                             Т
GAM112 KIAA1265 3' CCATATGAATTTTGGTATA 2896
                     TATACCAGAATT ATGG
                     ATATGGTTTTAA TACC
                          GTA
GAM112 MGC2731 3' CCACTGATTGGCTGGTGTA 2050
                                                Α
                     TATACCAG AATTA TGG
                     ATGTGGTC TTAGT ACC
                        GG C
GAM113 C3AR1 3' ACTGTCAAAGAATCAATCCA 1081
                                              GA
                     TG ATTGATTCTT GGT
                     AC TAACTAAGAA TCA
                      С
                           ACTG
GAM113 GABARAPL3 3' TATACCTCTCACTCATTCA 2260
                                           T TTCTT
                     TGAAT GA GAGGTATA
                     ACTTA CT CTCCATAT
                       _ CACT_
GAM113 GOLGA2LY 5' CTCAGTGAAAACATCAATTCA 2684
                     TGAATTGAT TC TTGAG
                     ACTTAACTA AG GACTC
                         CAAA T
GAM113 PEG10 3' TACCTCAAGTATCAATTCA 1607
                                           Т
                     TGAATTGAT CTTGAGGTA
                     ACTTAACTA GAACTCCAT
                         Т
GAM113 RNF13 3' TGTAACTCAAGCATCAATTCA 1376
                                            Т
                                               G
                     TGAATTGAT CTTGAG TATA
                     ACTTAACTA GAACTC ATGT
                         С
                            Α
GAM113 LOC143692 5' GCCTATCAGAAGTCAATTCA 3060
                                              CT __
                     TGAATTGATT TGA GGT
                     ACTTAACTGA ACT CCG
                         AG AT
GAM113 LOC151201 5' GTTTATACCATTGGATTCAATT 3342
                                              T TGA
         CA
                      TGAATTGA TCT GGTATAAAC
```

```
ACTTAACT AGG CCATATTTG
                        T TTA
GAM113 LOC2574315' CTCAGTGAAAACATCAATTCA 3231
                     TGAATTGAT TC TTGAG
                     ACTTAACTA AG GACTC
                         CAAA T
GAM113 LOC93259 5' ATACCCAGGTCAATTC
                                  2927
                                          TT A
                     GAATTGA CTTG GGTAT
                     CTTAACT GGAC CCATA
GAM114 SAMHD1 3' CATCAAATCCTGCCCCCGT 2594
                                           AA
                     ACGGG CAGGGTTTG TG
                     TGCCC GTCCTAAAC AC
                       CC
                             Т
GAM114 LOC150864 5' AATCAACAGGCTCCCG
                                   3150
                                          ACAGG
                     CGGGA GTTTGTTGATT
                     GCCCT CGGACAACTAA
GAM114 LOC257358 3' AATCAACACCCTTGCCCC 3731
                                          AA TT
                     GGG CAGGG TGTTGATT
                     111 11111 11111111
                     CCC GTTCC ACAACTAA
                      C_ C_
GAM114 LOC90288 3' AATCTTGCTCTGTTCCC
                                            TTGTT
                                   2621
                     GGGAACAGGGT GATT
                     CCCTTGTCTCG CTAA
                         TT
GAM115 GAD1
             3' GGCTTAGTAATAGATCACGGCA 777
                                         АА
                                                 A T
                     TGC CGT ATCTATTAT GA GCC
                     ACG GCA TAGATAATG TT CGG
                      _ C
                           Α_
GAM115 KLHL2 3' TATAATAAATTATGTGCA 1371
                                           С
                     TGCACGTAAT TATTATA
                     ACGTGTATTA ATAATAT
GAM115 KIAA0276 3' CACTGTAATGTTACATGCA 2904
                                          C CT
                                                  Α
                     TGCA GTAAT ATTATAG TG
                     ACGT CATTG TAATGTC AC
GAM115 LOC1308143' GGCACCTATAATAAATGAC 3012
                                          A C
                                                Α
                     GT AT TATTATAG TGCC
```

```
CA TA ATAATATC ACGG
```

GA C

GAM116 TGFBR2 3' AATGCCTGTATATAAATATGAA 1002 TAG C_

TTCATATTTAT ATAC GCATT

AAGTATAAATA TATG CGTAA

TC

GAM116 KIAA1223 3' AATGAGTCTATTAATAAATATG 2908 ATACCG

AA TTCATATTTATTAG CATT

AAGTATAAATAATT GTAA

ATCTGA

GAM116 PRO2859 5' CGGTATGTAAATATGAA 1840 TAG

TTCATATTTAT ATACCG

AAGTATAAATG TATGGC

GAM116 PSIP2 3' ATGCTTATACAATAAATATGAA 2324 AG CC

TTCATATTTATT ATA GCAT

AAGTATAAATAA TAT CGTA

CA T_

GAM116 LOC152185 3' AATGCAAATCAAATAAATATGA 2497 A ACC

TCATATTTATT GAT GCATT

AGTATAAATAA CTA CGTAA

A AA

GAM116 LOC89953 3' ATGCTACTCTAATAAATAT 2437 TACC

ATATTTATTAGA GCAT

TATAAATAATCT CGTA

CAT_

GAM116 LOC90509 5' GTGTTTAATAAATATGAA 2649

TTCATATTTATTAGATAC

AAGTATAAATAATTTGTG

GAM117 BPNT1 3' CAATGAGAGATTATA 2702 TCC

TATGA TCTCTCATTG

11111 1111111111

ATATT AGAGAGTAAC

GAM117 FLJ21709 3' CAATGAGGGTGTCATG 2235 CCT

TATGAT CTCTCATTG

GTACTG GGGAGTAAC

T__

GAM117 MGC13007 5' CAATGAGAAAGGAGAGTA 2246 GA C

TAT TCCT TCTCATTG

```
ATG AGGA AGAGTAAC
                      AG A
GAM117 MGC14407 5' CAATGGGGGAGACATA 2294
                                         ATC
                    TATG CTCTCTCATTG
                     ATAC GAGGGGGTAAC
GAM117 LOC151201 3' CAATGGGGCGGTCATA
                                   3341
                                         TTT
                    TATGA CC CTC CATTG
                     11111 11 111 11111
                    ATACT GG GGG GTAAC
                      _ C _
GAM117 LOC197131 3' CAATGAGTGGATCATG
                                  3419
                                          TCT
                    TATGATCC CTCATTG
                     GTACTAGG GAGTAAC
                        Т
GAM117 LOC219942 3' CAACAAGCGGGGGTCATA 3598
                                              CA
                    TATGATCCTCT CT TTG
                    ATACTGGGGGG GA AAC
                         C AC
GAM118 B3GAT1 5' CAGTTGGGCCGGACTCTCC 1855
                                           ACTA
                     GGAGAGTT GGCCCAACTG
                     CCTCTCAG CCGGGTTGAC
                        G
GAM118 B3GAT1 5' CAGTTGGGCCGGACTCTCC 2362
                                           ACTA
                     GGAGAGTT GGCCCAACTG
                     CCTCTCAG CCGGGTTGAC
                        G
GAM118 GALNT7 3' AGTTGAGAAACTCTCCTG 2365
                                           A AGGCC
                    TAGGAGAGTT CT CAACT
                     GTCCTCTCAA GA GTTGA
                        Α _
GAM118 ZNF76 3' CAGCTGGGCGCCCACTCTCCT 1019
                                            TACTAG A
                     AGGAGAGT
                              GCCCA CTG
                     TCCTCTCA
                              CGGGT GAC
                        CCCG
                               С
GAM118 DKFZp434M0331 5' CAGTTGAGCCTCATGGCTCTCC 1727 CT C
                     GGAGAGTTA AGGC CAACTG
                     CCTCTCGGT TCCG GTTGAC
                        AC A
GAM118 FLJ20666 5' CAGTCACCTGATGACTCTCC 1763
                                            C CCCA
                    GGAGAGTTA TAGG ACTG
```

```
CCTCTCAGT GTCC TGAC
                       A AC
GAM118 FYCO1 3' CAGTCAGGCCCCAGGTTCTTCC 2064 G TTA A CA
                    GGA AG CT GGCC ACTG
                    CCT TC GA CCGG TGAC
                     _ TTG CC AC
GAM118 ILF3 5' CAGTTGAACCCAGCAGCCCGCC 1121
                                        AGA A A CC
                    GG GTT CT GG CAACTG
                    CC CGA GA CC GTTGAC
                     GCC C C AA
GAM118 KIAA0193 3' CAGTTGGGCCTAATCCTGCCTC 1544 A TAC
                    GAG GT TAGGCCCAACTG
                    CTC CG ATCCGGGTTGAC
                     TCCTA
GAM118 KIAA1163 3' CAGCTGGACCTAGCTGATTCTC 3121
                                          C A
                    GAGAGTTA CTAGG CCA CTG
                    CTCTTAGT GATCC GGT GAC
                       CAC
GAM118 KIAA1247 3' GGCTCCCTAGCAACTCCCTA 2609
                                       A A C
                    TAGG GAGTT CTAGG CC
                    ATCC CTCAA GATCC GG
                     C CTC
GAM118 KIAA1870 5' CAGCTGGGCCTGCAGTTCCTCC 2293 A TT ___
        C
                    GG GAG ACT AGGCCCA CTG
                    CC CTC TGA TCCGGGT GAC
                     _ CT CG C
GAM118 LOC146517 3' CAGTTAAACCTAGATCCCTCCC 3095
                                         A TTA CCC
        Т
                    AGG GAG CTAGG AACTG
                    TCC CTC GATCC TTGAC
                     _ CCTA AAA
GAM118 LOC162083 5' CAGCTGGGCTCCATAGACCCTC 3242 A ACTA_ A
        C
                    GGAG GTT GGCCCA CTG
                    CCTC CAG TCGGGT GAC
                     C ATACC C
GAM118 LOC220477 5' CAGTTGGGCCCTGTACCATCCC 3041 A GT_ TA
                    GG GA TAC GGCCCAACTG
                    CC CT ATG CCGGGTTGAC
                     _ ACC TC
GAM118 LOC222237 3' AGCTGGGCCTAGTCAACT 3650
                                             Α
                    AGTT ACTAGGCCCA CT
```

```
C
                          C
GAM118 LOC255096 5' TGGGCCAGCAGATTCTCC 3745
                                           A A
                    GGAGAGTT CT GGCCCA
                    CCTCTTAG GA CCGGGT
                       AC
GAM118 LOC92340 3' CAGCCAGGCCCTCTTCTCCTG 2837
                                            TTACTA CAA
                    TAGGAGAG
                              GGCC CTG
                         GTCCTCTT CCGG GAC
                       CTC ACC
GAM119 ARG1
            3' TAACTTGGCAAAAGACTTA 700
                    TAAGTCTT CCAAGTTG
                    ATTCAGAA GGTTCAAT
                       AAC
GAM119 BACH2 3' TGATGCTGCAGTGGAAAAC 1964
                                        C AGT
                    GT TTCCA TGGCATCA
                    CA AAGGT GTCGTAGT
                     A GAC
GAM119 CDR1
            3' TGATTTACTGGAAGACTTG 1083
                                          A TGGC
                    TAAGTCTTCCA GT ATCA
                    GTTCAGAAGGT CA TAGT
                        _ TT__
GAM119 CNTN3 3' GCATTATTTGGAAGACTTA 2758
                                            TG
                    TAAGTCTTCCAAGT GC
                    ATTCAGAAGGTTTA CG
                          TTA
                                        C CAAG
GAM119 ESRRG 3' GATGTCGAAGAACTTA
                                 2748
                    TAAGT TTC TTGGCATC
                    ATTCA AAG AGCTGTAG
                      _ A___
GAM119 FSTL1 3' GATGCCAGAGAGAACTTA 1357
                                        CT CAAG
                    TAAGT TC TTGGCATC
                    ATTCA AG GACCGTAG
                      AG A
GAM119 GABRB2 3' TGATGTAGGACTTGGAAAAC 1967
                                         C
                                             G_
                    GT TTCCAAGTT GCATCA
                    CA AAGGTTCAG TGTAGT
                     Α
                         GA
GAM119 GABRB2 3' TGATGTAGGACTTGGAAAAC 776
                                        С
                                             G_
```

GT TTCCAAGTT GCATCA

TCAA TGATCCGGGT GA

```
CA AAGGTTCAG TGTAGT
                           GA
GAM119 MCP
            3' ATGCCAACTCTTAAGATT 925
                                         CCA
                     AGTCTT AGTTGGCAT
                     TTAGAA TCAACCGTA
                        TTC
GAM119 NRIP1
             3' ATGCCAACAAAGCTTA
                                 2548
                                        T CCAA
                     TAAG CTT GTTGGCAT
                     ATTC GAA CAACCGTA
                       Α
GAM119 OPHN1
             3' GATGCAAACATTGGAAGATT 936
                                             _ G
                     AGTCTTCCAA GTT GCATC
                     TTAGAAGGTT CAA CGTAG
                         A
GAM119 PTPRO 3' GAAGCACCGGGAAGACTTA 964
                                             AA TG A
                     TAAGTCTTCC GT GC TC
                     ATTCAGAAGG CA CG AG
                          GC __ A
GAM119 PTPRO 3' GAAGCACCGGGAAGACTTA 2155
                                              AA TG A
                     TAAGTCTTCC GT GC TC
                     1111111111 11 11 11
                     ATTCAGAAGG CA CG AG
                          GC __ A
GAM119 PTPRO 3' GAAGCACCGGGAAGACTTA 2156
                                              AA TG A
                     TAAGTCTTCC GT GC TC
                     ATTCAGAAGG CA CG AG
                          GC __ A
                                              AA TG A
GAM119 PTPRO 3' GAAGCACCGGGAAGACTTA 2157
                     TAAGTCTTCC GT GC TC
                     ATTCAGAAGG CA CG AG
                          GC __ A
             3' GAAGCACCGGGAAGACTTA 2158
                                              AA TG A
GAM119 PTPRO
                     TAAGTCTTCC GT GC TC
                      1111111111 11 11 11
                      ATTCAGAAGG CA CG AG
                          GC __ A
GAM119 RAD50
             5' TGATGTCAATGGAGAACTTA 2419
                                           CT AG
                     TAAGT TCCA TTGGCATCA
                     ATTCA AGGT AACTGTAGT
                       AG
GAM119 RORB
             3' GTGTTCATGAAGACTTA
                                  1338
                                           CAA TG
```

TAAGTCTTC GT GCAT

```
ATTCAGAAG TA TGTG
                        ___ CT
GAM119 SORD 3' TAACTTCATGAAGACTTA 990
                                         С
                    TAAGTCTTC AAGTTG
                    ATTCAGAAG TTCAAT
                        TAC
GAM119 SULT1C1 3' ATGCCACCCTTTTGGAAGC 797
                                        T T__
                    G CTTCCAAG TGGCAT
                    C GAAGGTTT ACCGTA
                        TCCC
GAM119 WRB
            3' GTTCTTTGAAGACTTA 1137
                                        C TT
                    TAAGTCTTC AAG GGC
                    ATTCAGAAG TTC TTG
                        Т
GAM119 ANKRD5 5' TGATCGCCCGGAAGACT 1978
                                         AAGTT
                    AGTCTTCC GGC ATCA
                    TCAGAAGG CCG TAGT
                        C____ C
GAM119 C7orf10 3' TGATACCACTAAGAAGAAGATT 2084
                                          CA T C
                     TAAGTCTTC AGT GG ATCA
        TA
                     ATTTAGAAG TCA CC TAGT
                        AAGAA A
GAM119 DKFZP727M111 5' TGATGCCAACTCAGAC 1633
                                           TCCA
                    GTCT AGTTGGCATCA
                     CAGA TCAACCGTAGT
                      С
GAM119 FLJ13262 3' TGATGCCAACTCCCCGCACTT 2113
                                           CTTCCA
                    AAGT AGTTGGCATCA
                     TTCA TCAACCGTAGT
                      CGCCCCC
GAM119 FLJ20425 5' TGACGGCTTTTTGACAAGACTT 1755
                                            C_ TT A_
                     TAAGTCTT CAAG GGC TCA
                     11111111 1111 111 111
                     ATTCAGAA GTTT TCG AGT
                        CA T_ GC
GAM119 KIAA0953 3' TGGAAACTAGAAGACTTA 2763
                                          CA GG
                    TAAGTCTTC AGTT CA
                    ATTCAGAAG TCAA GT
                        A_ AG
GAM119 KIAA1450 3' TGATGCTTCATTGAAGACTTA 2732
                                            C GTT
                    TAAGTCTTC AA GGCATCA
```

```
ATTCAGAAG TT TCGTAGT
                        _ ACT
GAM119 NEUROD6 5' TGAAAAGATTTGGAAGAC 2000
                                           GGCA
                    GTCTTCCAAGTT TCA
                    CAGAAGGTTTAG AGT
                         AAA
GAM119 PRO0255 3' GTTTCTTGAAAGACTTA 1475
                                         C TT
                    TAAGTCTT CAAG GGC
                    ATTCAGAA GTTC TTG
                       А Т
GAM119 UBE3B 5' TGATGCCGAGGAAAGACT 3069
                                         AAG
                    AGTCTT CC TTGGCATCA
                    TCAGAA GG AGCCGTAGT
GAM119 ZIM2 3' ATGTCAGTAGGAGACTTA 1623
                                         CAAG
                    TAAGTCTTC TTGGCAT
                    ATTCAGAGG GACTGTA
                        AT__
GAM119 LOC112868 3' TGTAGACATGAAGACTTA 2962
                                           CAA G
                    TAAGTCTTC GTT GCA
                    ATTCAGAAG CAG TGT
                        TA_ A
GAM119 LOC1161663' TAACTTCATGAAGACTTA 2545
                                           С
                    TAAGTCTTC AAGTTG
                    ATTCAGAAG TTCAAT
                        TAC
GAM119 LOC123855 3' TGAGCACGCTTGGAATAC 3033
                                         C TG A
                    GT TTCCAAGT GC TCA
                    CA AAGGTTCG CG AGT
                         CA _
                     Т
GAM119 LOC146818 5' GATGCCGAAGAAGGCT
                                          CAAG
                                  3100
                    AGTCTTC TTGGCATC
                    TCGGAAG AGCCGTAG
                       Α
GAM119 LOC152190 5' TGACAACTGGAAGACTT 2864
                                           A G
                    AAGTCTTCCA GTTG CA
                    TTCAGAAGGT CAAC GT
GAM119 LOC153077 3' TGATACCAACTTGAGATAACTT 3366
                                           CT _
                    AAGT TC CAAGTTGG ATCA
```

```
TTCA AG GTTCAACC TAGT
                      AT A
                            Α
GAM119 LOC158382 3' TGATAGCTGATAAGACTTA 3388
                                           CCAA TG
                    TAAGTCTT GT GC ATCA
                    ATTCAGAA TA CG TAGT
                        ___ GT A
GAM119 LOC158476 3' TGATCTCGTCAGGAGACTTA 3391
                                             CAAGT ___
                    TAAGTCTTC TGGC ATCA
                    ATTCAGAGG ACTG TAGT
                         CTC
GAM119 LOC164397 5' ATGTCTTCTGAAGACTTA 3249
                                           CA TT
                    TAAGTCTTC AG GGCAT
                    ATTCAGAAG TC CTGTA
                        TT
GAM119 LOC196510 3' TGATCTGGCTTGGCAGACTTA 3416
                                           T TG C
                    TAAGTCT CCAAGT G ATCA
                    ATTCAGA GGTTCG C TAGT
                       С
                          GT _
GAM119 LOC200220 3' TGATCTGGCTTGGCAGACTTA 3445
                                            T TG C
                    TAAGTCT CCAAGT G ATCA
                    ATTCAGA GGTTCG C TAGT
                       C GT_
GAM119 LOC201477 5' CAACTGAGGTCTGTAAGACTTA 3472
                                             ____ A_
                    TAAGTCTT CC AGTTG
                    ATTCAGAA GG TCAAC
                       TGTCT AG
GAM119 LOC201696 5' TGATGCCATTGAAGACTT 2650
                                           CAAGT
                    AAGTCTTC TGGCATCA
                    TTCAGAAG ACCGTAGT
                        TT
GAM119 LOC220469 3' GATGGCCAGAAGATTTA
                                           CAAGT
                                   3049
                    TAAGTCTTC
                              TGGC ATC
                     ATTTAGAAG ACCG TAG
                            G
GAM119 LOC221272 3' TGACACCAACTTTTGAGATTTA 3615
                                             CC
                                                  CA
                    TAAGTCTT AAGTTGG TCA
                    ATTTAGAG TTCAACC AGT
                            AC
                       TT
GAM119 LOC222166 3' TGAGGCCCCAGAGGACTTA 3636
                                             CAAGTT A
                    TAAGTCTTC GGC TCA
```

```
ATTCAGGAG CCG AGT
                        ACC___ G
GAM119 LOC253220 5' TGAGCAGCTCCTGGAAGAC 3706
                                             G A
                     GTCTTCCA AGTTG C TCA
                     CAGAAGGT TCGAC G AGT
                        CC
GAM119 LOC51275 5' TGATGGAAGTGGAAGATT 1694
                                            AG GG
                     AGTCTTCCA TT CATCA
                     TTAGAAGGT AG GTAGT
                        GA
GAM119 LOC54505 5' GATTTCTGGAAGACTTA 2800
                                           AGTT C
                     TAAGTCTTCCA GG ATC
                     ATTCAGAAGGT CT TAG
                          __ T
GAM119 LOC90844 3' TGATTGCATTGGAAGATCA 2682 A
                                             GTTG _
                     A GTCTTCCAA GCA TCA
                     A TAGAAGGTT CGT AGT
                     С
                         A___ T
GAM119 LOC92697 5' GATGCCACCAGACTTA
                                          TCCAA T
                                  2882
                     TAAGTCT GT GGCATC
                     ATTCAGA CA CCGTAG
                       C___
GAM120 KIF5C 3' ACAAATTCTATTGAAGTATTT 1122
                                         AC
                     GAATAT TCAATAGAATTTGT
                     TTTATG AGTTATCTTAAACA
                                                 CA AAT
GAM120 DKFZP564M182 3' ACAATTGTCAAGTATATTCTG 3097
                     TAGAATATACT ATAG TTGT
                     GTCTTATATGA TGTT AACA
                         AC
GAM120 KIAA0852 5' ACAAATTCGTAAGTATCCTCTA 1594
                                           AT CAATA
                     TAGA ATACT GAATTTGT
                     ATCT TATGA CTTAAACA
                      CC ATG
GAM120 PRO0097 5' CTATTGAGTAGTATTCTA 1472
                     TAGAATAT ACTCAATAG
                     ATCTTATG TGAGTTATC
                        Α
GAM120 LOC222161 5' TTGTATTAGTATATTCTA 3578
                                            C G
                     TAGAATATACT AATA AA
```

ATCTTATATGA TTAT TT

_ G

GAM120 LOC255811 5' ACAAAGATGGCTATCGGTATAT 3662 CA AA_ **TCTA** TAGAATATACT ATAG TTTGT ATCTTATATGG TATC AAACA C GGTAG 3' TATTAAGTAAAATCCCCTTC 2569 GAM121 DPYD TAT GA GGGATTTTACTTAATA CT CCCTAAAATGAATTAT TC GAM121 KIAA1240 3' TATTAATGTTTAAATCCCATCT 2761 T_{-} C GA ATGGGATTT AC TTAATA CT TACCCTAAA TG AATTAT С TT T GAM121 KIAA1843 3' TATTACAGAAAATCCCATATTC 2624 A Α_ Α A GATATGGGATTTT CT TAATA A TTATACCCTAAAA GA ATTAT C _ C GAM121 LOC122786 3' ATTAAGTAATCCACCATTTCTT 2995 T GATT TAAGA ATGG TTACTTAAT Α ATTCT TACC AATGAATTA T ACCT GAM122 FGF12 3' AACTAAACTGTATTGTTATT 1935 TAG AATAACAGT TAGTTTAGTT TTATTGTTA GTCAAATCAA T__ GAM122 FGG 3' AACTGCTAACTTCTATTGA 1965 AC TCAATA AGTTAGTAGTT AGTTAT TCAATCGTCAA CT GAM122 NEBL 3' AACTAACTGTCAACTGTTG 1295 AG T TAACAGTT TAGTT AGTT GTTGTCAA GTCAA TCAA CT GAM122 RPE 3' AACTAAATATTTATAACTGTTC 2623 GTA AΤ TGA TCA AACAGTTA GTTTAGTT AGT TTGTCAAT TAAATCAA C_{-} ATTTA _ T GAM122 TRHDE 3' AACTAAATTTCTCAACTGTTAT 1446 Α GA TCA TAACAGTT AG AGTTTAGTT

```
СТ
GAM122 BCMP1 3' AACTAAACATTCTCTGTTCTGA 2197 AT TT A
                    TCA AACAG AGT GTTTAGTT
                    AGT TTGTC TTA CAAATCAA
                      C_ TC _
GAM122 DKFZP434A0225 3' AACTAAACCTAATGCTGCTGTT 3624
                                             T ___
                     TAACAGT AGTA GTTTAGTT
                    ATTGTCG TCGT CAAATCAA
                       AATC
GAM122 FLJ12899 3' ACTAAAATACTGTTATTGG 2069
                                           TAGTAG
                    TCAATAACAGT TTTAGT
                    GGTTATTGTCA
                                AAATCA
                         TA
GAM122 PREI3 3' AACTAAACTACTAAGTTA 2747
                                       AG
                    TAAC TTAGTAGTTTAGTT
                    ATTG AATCATCAAATCAA
GAM122 PSIP2 3' AATTAAGCAACTGACATTGA 2323
                                         AACA A
                    TCAAT GTTAGT GTTTAGTT
                    AGTTA CAGTCA CGAATTAA
GAM122 LOC220963 3' AACTAAACTACTTGTTGTGTTG 3526
                                            A TT
        Α
                     TCAATA CAG AGTAGTTTAGTT
                    AGTTGT GTT TCATCAAATCAA
                       _ GT
GAM123 LOC143098 5' CGATGATCTGGCCGAAGAGCTT 3051
                                            A_ _ TT
                    AAGCT TCG TCA GATCATCG
                    TTCGA AGC GGT CTAGTAGC
                      GA C __
GAM124 CALB2 3' AAAGAAGAGTTTACAGACAATA 853
                                            ATTTA_
                     TTATTGTCTG TTTCTTT
        Α
                     GAAGAAA
                    AATAACAGAC
                        ATTTGA
GAM124 TRAF5 3' AAAGAAATAGGTTCACAACAGG 1133 A CT
        Α
                     TCTT TTGT GATTTATTTCTTT
                    AGGA AACA TTGGATAAAGAAA
                      C C_{-}
                                              TTA__
GAM124 C15orf5 3' AAAGAAAGGCACCATCAGACAA 2173
```

TCTT TTGTCTGAT TTTCTTT

AAGA

AGT ATTGTCAA TC TTAAATCAA

```
AGAA AACAGACTA AAAGAAA
                           CCACGG
                                               CT
GAM124 DKFZp761K1423 3' AAAGAAATAAATCCAACAA 1826
                     TTGT GATTTATTTCTTT
                     AACA CTAAATAAAGAAA
                       AC
                                               TTTA
GAM124 FLJ12892 5' AAAGAAACATCATCTTCAGATA 2801
         ATAAGA
                         CTTATTGTCTGA
                                       TTTCTTT
                     GAATAATAGACT
                                    AAAGAAA
                          TCTACTAC
GAM124 MGC15437 3' AAAGAAATAAATGACAAT 2292
                                            TG
                     ATTGTC ATTTATTTCTTT
                     TAACAG TAAATAAAGAAA
GAM124 MGC27016 3' AAAGAAATGATGAGACAAAAAG 2503
                                             A G T
         Α
                      TCTT TTGTCT ATT ATTTCTTT
                     AGAA AACAGA TAG TAAAGAAA
                       A G _
GAM124 LOC154089 3' AAGAAATATTACAATAAGG 3187
                                              CTGATT
                     TCTTATTGT TATTTCTT
                     GGAATAACA
                                 ATAAAGAA
                         TT
                                              TG ____
GAM124 LOC159053 3' AAAGAAATAAACTTTTGGACAG 3395
                     TTGTC A TTTATTTCTTT
                     GACAG T AAATAAAGAAA
                        GT TTC
GAM125 XPR1
             3' CTGAGCATATCTCTCGTAACA 1152
                                            AAATCA A
                     TGTTACGA ATAT TTCAG
                     1111 11111
                     ACAATGCT TATA GAGTC
                         CTC___ C
GAM126 DFNA5 3' TGCACGTTAAAAGTTGAC 1109
                                           GC
                                                Α
                     GTCAAT TTTAACGT CA
                      CAGTTG AAATTGCA GT
                        \mathsf{A}_{-}
                             С
GAM126 LRAT
             3' TGTCTTTTAAAGCATTTACTAA 2557
                                           С
                                                CGT
                     TTAGT AATGCTTTAA ACA
                     AATCA TTACGAAATT TGT
                       Т
                            TTC
                                              __ T AC
GAM126 PKHD1
             3' TACACTATAGCACTTTGACTAA 2449
                     TTAGTCAA TGCT TA GTA
```

```
TC T CA
GAM126 HSPC055 5' CGTTGAAGCACAACTAA
                                          CAA
                                   1480
                     TTAGT TGCTTTAACG
                     AATCA ACGAAGTTGC
                       AC
GAM126 PRO0386 5' TACTTTGAGAAACATTGACTA 1845
                                              C__ C
                     TAGTCAATG TTTAA GTA
                     ATCAGTTAC GAGTT CAT
                         AAA
                             Т
GAM126 LOC121441 3' TGTTTCTAAGCCATTGACTAA 2992
                                               _ TAACGT
                     TTAGTCAATG CTT
                                     ACA
                     - 111
                     AATCAGTTAC GAA
                                     TGT
                         C TCTT
GAM127 ADAMTS5 3' ATTGGAAACTGAAATTCAGA 1351
                                           CA G
                                                   TG
                     TC AATT CAGTTTC GT
                     AG TTAA GTCAAAG TA
                      AC A
                             GT
GAM127 BHLHB3 3' GATACCAGATAATCACAA 2161
                                          CA _
                     TTG GTT TCTGGTATC
                     AAC TAA AGACCATAG
                      AC T
GAM127 CCR2
             3' GCTGAAAACTGCAACTTG 767
                                             CT
                                        Α
                     CAA TTGCAGTTT GGT
                     GTT AACGTCAAA TCG
                      С
                           AG
GAM127 DCN
            3' ACCTAACTGCAATGTGGA 868
                                             TCT
                     TCCA ATTGCAGTT GGT
                     AGGT TAACGTCAA CCA
                       G
                            T__
GAM127 DCN
            3' ACCTAACTGCAATGTGGA 2421
                                             TCT
                     TCCA ATTGCAGTT GGT
                     AGGT TAACGTCAA CCA
                       G
                            \mathsf{T}_{-}
GAM127 DCN
            3' ACCTAACTGCAATGTGGA 2422
                                         Α
                                              TCT
                     TCCA ATTGCAGTT GGT
                     AGGT TAACGTCAA CCA
                       G
                            T__
GAM127 DCN
            3' ACCTAACTGCAATGTGGA 2423
                                         Α
                                              TCT
                     TCCA ATTGCAGTT GGT
```

AATCAGTT ACGA AT CAT

```
AGGT TAACGTCAA CCA
                             T__
                        G
GAM127 DCN
             3' ACCTAACTGCAATGTGGA 2424
                                                TCT
                      TCCA ATTGCAGTT GGT
                      AGGT TAACGTCAA CCA
                        G
                             Τ
GAM127 DCN
             3' ACCTAACTGCAATGTGGA 2425
                                                TCT
                                           Α
                      TCCA ATTGCAGTT GGT
                      AGGT TAACGTCAA CCA
                             T__
                        G
GAM127 EXTL1
             5' GGACACGGCCCTGCATTCTGGA 1116
                                              AAT TTT GTA
                      TCCA TGCAG CTG TCC
                      AGGT ACGTC GGC AGG
                        CTT CC AC
                                              \mathsf{A} \ \mathsf{\_} \ \mathsf{T} \ \mathsf{A}
GAM127 FASN
             3' GGACACCAGAGCTGCCGACTTG 1088
         GA
                        TCCAA TTG CAGTT CTGGT TCC
                      11111 111 11111 11111 1111
                      AGGTT AGC GTCGA GACCA AGG
                         C C C
GAM127 INHBB
             3' GTCAGAAACTGCCATTTG 905
                      CAAAT GCAGTTTCTGGT
                      GTTTA CGTCAAAGACTG
GAM127 NEDD4 3' GATGGAAAACTGAAATTTGGA 2875
                                                   CTGG
                      TCCAAATT CAGTTT TATC
                      AGGTTTAA GTCAAA GTAG
                             AG
GAM127 NFYA
                                                  С
             3' ACCAAAACTGCAATCAGGA 1955
                      TCC ATTGCAGTTT TGGT
                      AGG TAACGTCAAA ACCA
                        AC
GAM127 NFYA
             3' ACCAAAACTGCAATCAGGA 933
                                           AΑ
                                                 С
                      TCC ATTGCAGTTT TGGT
                      111 1111111111111111
                      AGG TAACGTCAAA ACCA
                        AC
GAM127 RAD17 5' ACCTGCAACTGTAATTTG 967
                                              TCT
                      CAAATTGCAGTT GGT
                      GTTTAATGTCAA CCA
                           CGT
GAM127 RAD17
              5' ACCTGCAACTGTAATTTG 2410
                                               TCT
                      CAAATTGCAGTT GGT
```

```
GTTTAATGTCAA CCA
                          CGT
GAM127 RAD17 5' ACCTGCAACTGTAATTTG 2411
                                            TCT
                     CAAATTGCAGTT GGT
                     GTTTAATGTCAA CCA
                          CGT
GAM127 RAD17 5' ACCTGCAACTGTAATTTG 2412
                                            TCT
                     CAAATTGCAGTT GGT
                     111111111111 111
                     GTTTAATGTCAA CCA
                          CGT
GAM127 RAD17 5' ACCTGCAACTGTAATTTG 2413
                                            TCT
                     CAAATTGCAGTT GGT
                     GTTTAATGTCAA CCA
                          CGT
GAM127 RAD17 5' ACCTGCAACTGTAATTTG 2414
                                            TCT
                     CAAATTGCAGTT GGT
                     GTTTAATGTCAA CCA
                          CGT
GAM127 ZNF146 3' GGACACCAGAAAATTTGTA 1358
                                              Α
                     TGCAG TTTCTGGT TCC
                     ATGTT AAAGACCA AGG
                       TΑ
                            C
GAM127 CHST3 3' GGACACCAGAAGACGATTCAGA 1096 CA CAG
                                                     Α
                     TC AATTG TTTCTGGT TCC
                     AG TTAGC GAAGACCA AGG
                      AC A_ C
                                              G TTCT
GAM127 DKFZp762E1511 3' ATGCTACTGAATTTGGA
                                      2531
                     TCCAAATT CAGT GGTAT
                     AGGTTTAA GTCA TCGTA
GAM127 EIF5 5' GATACCAAAAAGTTGCAAT 878
                                         _ C
                     ATTGCAG TTT TGGTATC
                     TAACGTT AAA ACCATAG
                        G A
GAM127 LATS1 3' GGATACCACAGCCAATT 2563
                                         CA TC
                     AATTG GTT TGGTATCC
                     TTAAC CGA ACCATAGG
                       __ C_
GAM127 MGC27277 3' CCAAAATTGCAATTCAGA 2505
                                         CA
                                                C
                     TC AATTGCAGTTT TGG
```

```
AG TTAACGTTAAA ACC
                     AC
GAM127 POLD3 3' ACTAAAACTGAATTTG
                               3538
                                       G C
                    CAAATT CAGTTT TGGT
                    GTTTAA GTCAAA ATCA
GAM127 TSLRP 5' GATACATCACTGAAATTTGGA 1435
                                        G TTCTG
                    TCCAAATT CAGT GTATC
                    AGGTTTAA GTCA CATAG
                       A CTA
GAM127 LOC147463 3' ATACCAGTGGCAAATTTGGA 3108
                                            AGTTT
                    TCCAAATT GC CTGGTAT
                    AGGTTTAA CG GACCATA
                       A GT
GAM127 LOC161734 3' GGATACCGTTTTCAACTTGGA 3400
                                          A C TTTC
                    TCCAA TTG AG TGGTATCC
                    AGGTT AAC TT GCCATAGG
                      C _ TT__
GAM127 LOC164173 3' GATATTGAACTGCATCTGGA 3235
                                          AAT CT
                    TCCA TGCAGTTT GGTATC
                    AGGT ACGTCAAG TTATAG
                      CT_
GAM127 LOC199675 3' GCCAAAGCCACAACTTGGA 3429
                                          A CA C
                    TCCAA TTG GTTT TGGT
                    AGGTT AAC CGAA ACCG
                      C AC
GAM127 LOC200150 5' GCCAACTGCAGTTTG
                                          TTC
                                 3439
                    CAAATTGCAGT TGGT
                    GTTTGACGTCA ACCG
GAM127 LOC51185 3' ATACCAGAAACATCTACTTGGG 1679 ATTGCA
                    TCCAA GTTTCTGGTAT
                    GGGTT CAAAGACCATA
                      CATCTA
GAM127 LOC90459 3' GCTGAAACTGCAATTGGA 2643
                                         Α
                                              Т
                    TCCAA TTGCAGTTTC GGT
                    AGGTT AACGTCAAAG TCG
                                         C ___
GAM127 LOC91694 5' ATACCAGAGGTCACTTCAG 2769
                    TTG AGT TTCTGGTAT
```

```
T CTG
GAM128 SCNN1G 3' ACCTGAACTATTAGCACGTC 793
                                              CA
                     GA TGCTAATA TCAGGT
                     CT ACGATTAT AGTCCA
                      GC
                           CA
GAM128 YY1 3' ACCTGATGTGTACATC
                                1016
                                      CTA
                     GATG ATACATCAGGT
                     1111 11111111111
                     CTAC TGTGTAGTCCA
GAM128 FLJ21940 3' CCTGATGTGTACCTTA 2014
                                        A TAAT
                     TAAG TGC ACATCAGG
                     ATTC ATG TGTAGTCC
                      С
GAM128 PRO0159 5' ACCTGATGTATTGCTCT 1474
                                        TT
                     AGA GC AATACATCAGGT
                     TCT CG TTATGTAGTCCA
GAM128 LOC200282 3' CCTGATGTAGGTCTTATT 3448
                                           GCTAA
                     AATAAGAT TACATCAGG
                     TTATTCTG ATGTAGTCC
                        G
GAM129 PCDH9 5' ACATAGGGGATAGTAGCCAAC 3262
                                               GC
                     GTTGGCTACTATCTT TA GT
                     CAACCGATGATAGGG AT CA
                           GA
GAM129 ERO1L 3' GTACAATAACAACTCA
                                        GC CTATC
                                 1508
                     TGAGTTG TA TTGTAC
                     ACTCAAC AT AACATG
                        A_ _
GAM129 LOC253287 5' AAGATAATGCCAACTCA
                                           TAC
                                   3740
                     TGAGTTGGC TATCTT
                     ACTCAACCG ATAGAA
                        TA_
GAM129 LOC254268 5' ACAACTGACAGCAGCCAGCTCA 3674
                                               A A ___
                     TGAGTTGGCT CT TC TTGT
                     ACTCGACCGA GA AG AACA
                         C C TC
GAM130 AP1B1 3' AGCCACAGAAGCTGTGCC 802
                                             Α
                     GGCATGGTTTCTGTG CT
```

GAC TCA GAGACCATA

CCGTGTCGAA	ιGΑ	CA	C	GΑ
------------	-----	----	---	----

C GAM130 BBS2 5' AGCCACAGAAGGCGCCG 2214 AT G Α CGGC G TTTCTGTG CT GCCG C GAAGACAC GA G С GAM130 FRK 5' AGCCACAGAAAGCAAGCCG 890 A G Α CGGC TG TTTCTGTG CT 1111 11 111111111 11 GCCG AC AAAGACAC GA A G С GAM130 HSPD1 3' TAGTCACAGAAATTCC 2560 CAT GG GGTTTCTGTGACTA CC TTAAAGACACTGAT GAM130 IL20RA 3' TAGGAACTAAACTATGCC 1501 CT GA GGCATGGTTT GT CTA CCGTATCAAA CA GAT T_ AG GAM130 LAMC3 3' TAGTCACACTCCCTGCCG 1269 T TTTC CGGCA GG TGTGACTA GCCGT CC ACACTGAT C TC GAM130 MEST 3' TAGTCAAGTCACCATGCTG 2872 TT G CGGCATGGT CT TGACTA GTCGTACCA GA ACTGAT CT GG GAM130 MKI67 3' AGCCACAGGAGATGTC 927 Α GGCAT TTTCTGTG CT CTGTA GAGGACAC GA С GAM130 MMP19 3' AGCCACAGAAACCACGTT 2011 Α GGC TGGTTTCTGTG CT 111 11111111111111111 TTG ACCAAAGACAC GA С C GAM130 MMP19 3' AGCCACAGAAACCACGTT 2012 Α Α GGC TGGTTTCTGTG CT 111 11111111111111111 TTG ACCAAAGACAC GA С C GAM130 MS4A8B 3' AGTCTAGGAAACCATGCTG 2200 GT CGGCATGGTTTCT GACT

```
GTCGTACCAAAGG CTGA
                         AΤ
GAM130 PSMD9 3' TAGCCACAGACATGCTG 957
                                        GTT A
                    CGGCATG TCTGTG CTA
                    GTCGTAC AGACAC GAT
                           C
GAM130 SH3GL2 3' TAGTCACAGAACTGCTG 984
                                       TGGT
                    CGGCA TTCTGTGACTA
                    GTCGT AAGACACTGAT
                      С
GAM130 SPTAN1 3' AGTCACAATCATCATGTC 994
                                        TTC
                    GGCATGGT TGTGACT
                    CTGTACTA ACACTGA
                       CTA
GAM130 SYNGR1 3' AGTCACAGACTGTCCTGCC 1146
                                         T TT
                    GGCA GG TCTGTGACT
                    CCGT CC AGACACTGA
                     _ TGTC
GAM130 TRIM9 3' AGTCACAGAACTGGGGGTC 2353
                                       AT__ T
                    GGC GGTT CTGTGACT
                    CTG TCAA GACACTGA
                     GGGG _
GAM130 TRPM2 5' AGTTGCGAAACCATGTCG 1011
                                          T TG
                    CGGCATGGTTTC G ACT
                    GCTGTACCAAAG C TGA
                        _{-} GT
GAM130 ATPAF1 3' AGTCACAGAGATGAGCC
                                       ATG
                                 2582
                    GGC GTTTCTGTGACT
                    CCG TAGAGACACTGA
                     AG
GAM130 CENTG2 3' TAGTCACGCGCACGCGCCG 1587
                                          A _ TC
                    CGGC TG GTT TGTGACTA
                    GCCG GC CGG GCACTGAT
                     C A C_
GAM130 COL12A1 3' AGCCACAGAAGATGTC
                                 2381
                                       GG
                                             Α
                    GGCAT TTTCTGTG CT
```

CTGTA GAAGACAC GA __ C

GGCAT TTTCTGTG CT

GAM130 COL12A1 3' AGCCACAGAAGATGTC

1103

GG

Α

```
CTGTA GAAGACAC GA
```

C CT__A GAM130 DKFZp547l224 3' AGCCGCTGCAAAATCATGCC 1902 GGCATGGTTT GTG CT CCGTACTAAA CGC GA ACGT C GAM130 DKFZp566H0824 3' AGTGAGCTGAGACCATGCC 1721 ΤG GGCATGGTTTC GT ACT CCGTACCAGAG CG TGA T AG GAM130 FLJ11726 3' AGTGAGCCGAGACCATGCC 2119 ΤG GGCATGGTTTC GT ACT CCGTACCAGAG CG TGA C AG GAM130 FLJ12668 3' TAGTCACTTGCCACCATGCC 2124 TTCT GGCATGGT GTGACTA CCGTACCA CACTGAT CCGTT CGC GAM130 FLJ13385 3' TAGTCACAAAGATAATACC 2098 **GG AT GTTT TGTGACTA** 11 11 1111 11111111 CC TA TAGA ACACTGAT A A AGAM130 FLJ14936 3' TAGTCACAGACACAGGAGCC 2243 ATG T GGC GT TCTGTGACTA CCG CA AGACACTGAT AGGA C GAM130 FLJ14957 3' AGTCACAGCTGGGCTTCC 2291 CAT GG GGTTT CTGTGACT CC TCGGG GACACTGA T_ TC GAM130 HSU79275 3' TAGTCACAAGATTTACCAT 2746 T__ _ ATGGT TCT GTGACTA TACCA AGA CACTGAT TTT A GAM130 KALI 3' AGTGAGCCAAAATCATGCC 2346 CT G GGCATGGTTT GT ACT CCGTACTAAA CG TGA AC AG GAM130 KIAA0121 3' TAGTCACAGAGTGGCTG 2957 **ATGGT** CGGC TTCTGTGACTA

```
GTCG GAGACACTGAT
                       GT
GAM130 KIAA0254 3' AGTCACAGGGAAGTGCTG 1540
                                             GG TT
                      CGGCAT T CTGTGACT
                      GTCGTG A GACACTGA
                        A GG
GAM130 KIAA0820 3' AGCACAAACCATGTC
                                   2838
                                           TC A
                      GGCATGGTT TGTG CT
                      11111111 1111 11
                      CTGTACCAA ACAC GA
GAM130 KIAA0863 3' AGTCATGGAGACCAGCC
                                     3669
                      GGC TGGTTTCTGTGACT
                      CCG ACCAGAGGTACTGA
GAM130 KIAA1023 3' AGCCACAGGAGATGTC
                                    1728
                                           GG
                                                 Α
                      GGCAT TTTCTGTG CT
                      CTGTA GAGGACAC GA
                             C
GAM130 KIAA1161 5' AGTCACAGAACATCTCC
                                    3213
                                          CAT
                      GG GGT TTCTGTGACT
                      CC CTA AAGACACTGA
GAM130 KIAA1254 3' TCACAGAAAGTAAAGCCG 2876
                                           A G
                      CGGC TG TTTCTGTGA
                      GCCG AT AAAGACACT
                       AA G
GAM130 KIAA1805 3' TAGCTTGTGAAACCATTCC 3148
                                               T TG
                      GG ATGGTTTC G A CTA
                      CC TACCAAAG T T GAT
                       Т
                           _ GT C
GAM130 KIAA1866 3' TCACAGGACCGTCATGCTG 2587
                                              T___
                      CGGCATGG TTCTGTGA
                      11111111 11111111
                      GTCGTACT AGGACACT
                         GCC
GAM130 KIAA1958 3' AGTGAGCCGAGACCATGCC 3218
                                               ΤG
                      GGCATGGTTTC GT ACT
                      CCGTACCAGAG CG TGA
                          C AG
GAM130 LIMK2 5' AGTCACAGACGGATTTGC 1709
                                          Т
                      GCA GGTT TCTGTGACT
```

```
CGT TTAG AGACACTGA
                     _ GC
GAM130 MGC12921 5' AGTCACAGCAGCTGCC 2666 TG T
                    GGCA GTT CTGTGACT
                    CCGT CGA GACACTGA
                      __ C
GAM130 MGC5149 3' TAGCCACAGAAATGTC
                                        GGT A
                                 2939
                    GGCAT TTCTGTG CTA
                    CTGTA AAGACAC GAT
                           C
GAM130 MOST2 5' AGCCACCTGGCCATGCTG 1909
                                           TCT A
                    CGGCATGGTT GTG CT
                    GTCGTACCGG CAC GA
                        TC C
GAM130 MRPL9 3' AGTAGACCGAAACCATCC 2195
                                      С
                                          ΤG
                    GG ATGGTTTC GT ACT
                    CC TACCAAAG CA TGA
                         C GA
GAM130 NCBP2 3' AGTCACAGAAGGTTCC
                                1397
                                      C GG
                    GG AT TTTCTGTGACT
                    CC TG GAAGACACTGA
                     T ___
GAM130 PCYT1B 3' TAGTCACAGGAGCTGC 1160
                                       TG
                    GCA GTTTCTGTGACTA
                    CGT CGAGGACACTGAT
GAM130 PIP3-E 3' AGTCACAAACAATGTC 2764
                                      G TC
                    GGCAT GTT TGTGACT
                    CTGTA CAA ACACTGA
                      Α ___
GAM130 PPP1R15B 5' AGTCGGAAAACCATCGCCG 2288
                                             CTG
                    CGGC ATGGTTT TGACT
                    GCCG TACCAAA GCTGA
                         AG
GAM130 TFIP11 3' TAGTCACAGTAATCCCC 1410 CAT T
                    GG GGTT CTGTGACTA
                    CC CTAA GACACTGAT
                     C__ T
GAM130 LOC132617 3' AGTTTGAAATCATGCC
                                 3039
                                          TGT
                    GGCATGGTTTC GACT
```

```
CCGTACTAAAG TTGA
                         T___
GAM130 LOC147660 3' AGTCACAGATCACGCC
                                       A TT
                                  3111
                     GGC TGG TCTGTGACT
                     CCG ACT AGACACTGA
                      C __
GAM130 LOC149302 5' AGTCACAGCAGCCGCC
                                   3129
                                         AT T
                     GGC GGTT CTGTGACT
                     CCG CCGA GACACTGA
                      С
GAM130 LOC1517205' AGTCACAAAAACCATGCTG 3160
                                             С
                     CGGCATGGTTT TGTGACT
                     GTCGTACCAAA ACACTGA
GAM130 LOC152215 3' TAGTCACAAAGGGCTTACG 3167
                                          GCAT C
                     CG GGTTT TGTGACTA
                     GC TCGGG ACACTGAT
                     AT__ AA
GAM130 LOC152426 3' AGTCACAGGCAGGTGCC
                                          G TT
                                   3359
                     GGCAT GT CTGTGACT
                     CCGTG CG GACACTGA
                       GA
GAM130 LOC155179 3' AGCCACAGGAGATGTC 3199
                                         GG
                                               Α
                     GGCAT TTTCTGTG CT
                     CTGTA GAGGACAC GA
                           С
GAM130 LOC157562 5' TAGTCACATGGCCACACC 3381
                                         CA TC
                     GG TGGTT TGTGACTA
                     CC ACCGG ACACTGAT
                     AC T_
GAM130 LOC1631153' AGTCACAGATCCGATGTC 3244
                                          _ TT
                     GGCAT GG TCTGTGACT
                     CTGTA CC AGACACTGA
                       GT_{-}
GAM130 LOC169026 3' TAGTCACAAAATTTTACC 3260
                                        CAT C
                     GG GGTTT TGTGACTA
                     CC TTAAA ACACTGAT
                     ATT
GAM130 LOC170106 5' AGCCACAGGAAGTGTCC
                                   3255
                                         C G
                                               Α
                     GG ATG TTTCTGTG CT
```

```
CC TGT AAGGACAC GA
                      _ G
                             C
GAM130 LOC170425 5' TAGTCACAACCCAATGC
                                           TTC
                                    3048
                      GCAT GGT TGTGACTA
                      CGTA CCA ACACTGAT
                       AC
GAM130 LOC197342 3' AGTCACAGAAGGACTCGCC 3423
                                            AT __
                     GGC GGTT TCTGTGACT
                      111 1111 11111111
                      CCG TCAG AGACACTGA
                       C GA
GAM130 LOC200488 5' AGTCATGATCATGCCG
                                    3477
                                             TCT
                      CGGCATGGTT GTGACT
                      GCCGTACTAG TACTGA
GAM130 LOC2196673' TAGTCACAAATCAGAACTG 3517
                                            CA
                                                TC
                     CGG TGGTT TGTGACTA
                      GTC ACTAA ACACTGAT
                       AAG __
GAM130 LOC220980 5' AGCCACGTGAGCCATGCC 3592
                                               C A
                      GGCATGGTTT TGTG CT
                      CCGTACCGAG GCAC GA
GAM130 LOC253461 3' AGCCACAGAAAATATACC 3700
                                           C G
                                                 Α
                     GG ATG TTTCTGTG CT
                     CC TAT AAAGACAC GA
                      A A
                             С
GAM130 LOC253502 3' AGCCACAGAGGCCTGCC
                                            Т
                                     3660
                     GGCA GGTTTCTGTG CT
                      CCGT CCGGAGACAC GA
                            С
GAM130 LOC254211 5' AGTCACAGAGAGGTGCC
                                     3707
                                            GG
                      GGCAT TTTCTGTGACT
                      CCGTG AGAGACACTGA
                        G_{-}
GAM130 LOC90785 3' AGTGAGCCGAGACCATACC 2677
                                           С
                                                ΤG
                      GG ATGGTTTC GT ACT
                      11 11111111 11 111
                      CC TACCAGAG CG TGA
                          C AG
GAM130 LOC91050 3' AGTCACAGAAATCATTCT 2701
                     GG ATGGTTTCTGTGACT
```

```
TC TACTAAAGACACTGA
GAM130 LOC91380 3' AGTGAGCCGAGACCATGCC 2733
                                               ΤG
                     GGCATGGTTTC GT ACT
                     CCGTACCAGAG CG TGA
                          C AG
GAM131 EIF2C1 3' TTATTCCTCTCTGTCCACA 1414
                                        Α
                                             T TACA
                     TG TGGACAGA GA AATAA
                     AC ACCTGTCT CT TTATT
                      _ _ CC__
GAM131 PCDHA9 3' TATCTATATCTGTCTATCA 1461
                     TGATGGACAGAT GATA
                     ACTATCTGTCTA CTAT
                          TAT
GAM131 KIAA0923 3' TATTTGTGTTGTCCATT 1463
                                          GATG
                     GATGGACA ATACAAATA
                     TTACCTGT TGTGTTTAT
GAM131 UBF-fl 3' ATTTGTATATCTATCTACCA 2287 A C
                     TG TGGA AGATG TACAAAT
                     11 1111 11111 1111111
                     AC ATCT TCTAT ATGTTTA
                      C A
GAM131 LOC119548 3' CTTATCTGTTATGTGTTCATCA 2983
                                                  CAA
                                               G
                     TGATGGACA ATGATA ATAAG
                     ACTACTTGT TATTGT TATTC
                         G
                             С
GAM131 LOC120400 5' CTTATCCATCTCTGTCCATTA 3027
                                               T ACAA
                     TGATGGACAGA GAT ATAAG
                     ATTACCTGTCT CTA TATTC
                          _ CC__
GAM132 NARS
             3' AAAGTTCGGGGAAAATACC 1125
                                            TA CAA
                     GGTATTTTT TGG ACTTT
                     CCATAAAAG GCT TGAAA
                         GG
GAM132 BFAR
             3' TGCACATAAAAAATACCG 2581
                     CGGTATTTTTTATG GCA
```

A
GAM132 HSNOV1 3' AAAGTTCAAAAGTAGAAATACC 1720 TATGGCA
GGTATTTTT AACTTT
||||||||| |||||

GCCATAAAAAATAC CGT

```
CCATAAAGA
                               TTGAAA
                        TGAAAAC
GAM132 KIAA0628 3' AGGCTGCCATAACAAAATACC 1547
                                               AA
                    GGTATTTT TTATGGCA CT
                    CCATAAAA AATACCGT GA
                       C
                           CG
GAM132 KIAA1393 3' TAAAGTTTGATTGGAACATACC 2936
                                        T TGG
                    GGTAT TTTTA CAAACTTTA
                    CCATA AAGGT GTTTGAAAT
                      C TA
GAM132 LOC147054 5' TAAAGTTTACATGCTACAAAAA 3289
                                            Α
        ATAC
                      GTATTTTT TGGCA AACTTTA
                    CATAAAAA ATCGT TTGAAAT
                        C ACAT
GAM133 TRIM 3' CAAATGTAAGGCCATGA 1684
                                      AA GAC
                    TCAT GCTT TACATTTG
                    AGTA CGGA ATGTAAAC
                      C_ ___
GAM133 MGC11296 3' CCAAATGTAAGTGCCATGA 2248
                                         AA TGAC
                    TCAT GCT TACATTTGG
                    AGTA TGA ATGTAAACC
                      CCG
GAM133 PRO2037 5' CAAATGCTGTTTATGATA 1853
                                          TTGACTA
                    TATCATAAGC
                                CATTTG
                    ATAGTATTTG
                                GTAAAC
                        TC
GAM134 PMX1 3' TCTATAGTGATGAAACATT 1996 A
                                          ACCGT
                    AATG TTTCATCA TAGA
                    TTAC AAAGTAGT ATCT
                         GAT
GAM134 FLJ22557 3' TCTGGCATGATAAAATCATGGA 2083
                                        A C ACC
                    TC ATGATTT ATCA GTTAGA
                    AG TACTAAA TAGT CGGTCT
                     G
                         А А
GAM134 KIAA0618 5' TCTAGTGGATGAGAATCA 1563
                                         CA A
                    TGATTT TCA CCGTTAGA
                    ACTAAG AGT GGTGATCT
GAM134 LOC154215 3' AACGGTTGCCGGCCATTG 3188
                                          ATT AT
                    CAATG TC CAACCGTT
```

```
GTTAC GG GTTGGCAA
                      C__ CC
GAM135 GARP 3' ATCAACAAATCTTCACTGAGC 1220 C TTA
                    GCTC GT ATTTGTTGAT
                    CGAG CA TAAACAACTA
                     T CTTC
GAM135 TEM8
                                       CCG G
            3' AGGGAATTAAAGAAAGCCATG 1790
                    CATGGCT TTTAATTT TT
                    GTACCGA AAATTAAG GA
                      AAG
                            G
GAM135 TRHR
            3' ATCAACAAAAGGGAGAACATG 1009
                                       G G AATT
                    CATG CTCC TTT TGTTGAT
                    GTAC GAGG AAA ACAACTA
                     AA G
GAM135 LGI2 3' ATCAACAAACAAATCAAAGCCA 1792
                                        CC_ AA
                    TGGCT GTTT TTTGTTGAT
                    ACCGA TAAA AAACAACTA
                      AAC C_
GAM135 MGC4638 3' TCAACAAATGTGAGTCAT 2212
                                         CGTTTA
                    ATGGCTC ATTTGTTGA
                    TACTGAG TAAACAACT
                      TG
GAM135 LOC139065 5' CAACAAACAAGAGCTATG 3035
                                          CGTTTAA
                    CATGGCTC
                             TTTGTTG
                    GTATCGAG
                             AAACAAC
                       AAC
GAM135 LOC154282 3' ATCAACAAAAAGGAGGACCA 3372 C G AA
                    TGG TCC TTT TTTGTTGAT
                    ACC AGG AGG AAACAACTA
                     _{-} _{-} AA
GAM135 LOC91516 5' CAACAAAAAGGAGCTAT 2745
                                         GTTTAA
                    ATGGCTCC
                             TTTGTTG
                    TATCGAGG
                              AAACAAC
                       AA
GAM136 C20orf28 3' CCACTCCGGAGATCCGGGT 1629
                                          G ATA_
                    ACTCGGATCT CT TGG
                    TGGGCCTAGA GG ACC
                        GAM136 MGC5139 5' CCAAAGAAGATCCGAGTT 2994
                                           G ATA
                    AACTCGGATCT CT TGG
```

```
TTGAGCCTAGA GA ACC
                         A A__
GAM136 PRO0899 3' CCTGCAGCAGACCCGAGTTG 1847
                                           A AT
                    TAACTCGG TCTGCT TA GG
                     GTTGAGCC AGACGA GT CC
                           C _
GAM136 PRO1386 3' CCACATAGCAAGGTCTGA 2187
                                            Α
                    TCGGATCT GCTAT TGG
                     AGTCTGGA CGATA ACC
                       A C
GAM136 PTPRT 3' CCATGTAAATCCGGGTTA 2399
                                          CTGC
                    TAACTCGGAT TATATGG
                    ATTGGGCCTA ATGTACC
GAM136 TCL6 3' CCATTGCAGATTCGAGT 1919
                                          TAT
                    ACTCGGATCTGC ATGG
                    TGAGCTTAGACG TACC
                         T___
GAM136 TCL6 3' CCATTGCAGATTCGAGT 1433
                                          TAT
                    ACTCGGATCTGC ATGG
                     TGAGCTTAGACG TACC
                         Τ
GAM136 TEX27 3' CCATATAGCAAGTTTAGT 1968
                                       C TC
                    ACT GGA TGCTATATGG
                     TGA TTT ACGATATACC
                      _{-} GA
GAM136 LOC255759 5' CCTGTCAGGATCCGAGT
                                           GCT T
                                   3739
                    ACTCGGATCT ATA GG
                    TGAGCCTAGG TGT CC
                        AC_ _
GAM137 APXL
            3' ACTTACTTATTTTATCTA 842
                                        CT C
                    TAGATAAA AT AGTAAGT
                     ATCTATTT TA TCATTCA
                       T_ T
GAM137 CKN1
            3' ACTTCTGTATAGTTTATTTAGT 702
        CA
                      TGACTAGATAAACTAT CAG AAGT
```

T _
GAM137 HMGA2 3' ACCTACTAATAGTTTGTTGATC 1032 CTA C A
GA GATAAACTAT AGTA GT
|| ||||||||| ||| ||

ACTGATTTATTTGATA GTC TTCA

```
CT TTGTTTGATA TCAT CA
                      AG_
                            A C
GAM137 ZNF36 3' ACTTAAGGATCCTTCTAGTCA 3626
                                          TAAACT AG
                     TGACTAGA ATC TAAGT
                          11111111
                     ACTGATCT TAG ATTCA
                        TCC___ GA
GAM137 FLJ23191 3' GTTGATAGCCCTCTAGTCA 2065
                                           TAAA
                     TGACTAGA CTATCAGT
                     ACTGATCT GATAGTTG
                        CCC
GAM137 KIAA0841 3' ACTTACTGAAATTCCCAGTCA 2918
                                           A TAAACTA
                     TGACT GA
                               TCAGTAAGT
                     11111 11
                           ACTGA CT
                              AGTCATTCA
                       CC TAA
GAM137 KIAA1243 3' ACCTATGGGCAGTTTATCTG 2977
                                            AT A A
                     TAGATAAACT C GTA GT
                     GTCTATTTGA G TAT CA
                         CG G C
GAM137 RNF20 3' CTGTAGGACAGTTTATCAGTCA 1882
                                               A AGTA
                     TGACT GATAAACT TC AG
                     ACTGA CTATTTGA AG TC
                           C GATG
GAM137 LOC118851 3' ACTTTGGGAAATTCATCTGGTC 3025
                                             A CTA AGT
                     TGACTAGAT AA TC AAGT
         Α
                     ACTGGTCTA TT AG TTCA
                        C AA_ GGT
GAM137 LOC150005 3' ACTAGCTGCTTCTAGTCA 3322
                                            TAAACTAT A
                     TGACTAGA CAGT AGT
                     ACTGATCT GTCG TCA
                        TC
                               Α
GAM137 LOC221036 3' ACTTACCGATAGTTTCAGT 3585
                                          A TA A
                     ACT GA AACTATC GTAAGT
                     TGA CT TTGATAG CATTCA
                            C
GAM138 COG7
             3' AAAAGAGTTGTAAATTAAAGAT 2795
                                            __ G
         G
                     TATCTTTAA TA AACTCTTTT
                     GTAGAAATT AT TTGAGAAAA
                        AA G
GAM138 DUSP5 3' GAAAAGAGTTCTTCAGAT 1111
                                         TTAAT
                     ATCT AGAACTCTTTTC
```

```
TAGA TCTTGAGAAAAG
                      CT
GAM138 C6orf29 3' AAAAGATTTTATTAAAGATA 2278
                                            С
                     TATCTTTAATAGAA TCTTTT
                     ATAGAAATTATTTT AGAAAA
GAM138 CGR19 3' GAAAAGTACACTTTCTACTAAA 1311
                                         A CT__
        GATG
                       TATCTTTA TAGAA CTTTTC
                     GTAGAAAT ATCTT GAAAAG
                        C TCACAT
GAM138 DSCR6 3' GAAAAGAGTAACAGAAAGATAG 1865
                                            AATAGA
                     CTATCTTT ACTCTTTTC
                     GATAGAAA
                               TGAGAAAAG
                        GACAA
GAM138 ETL
           3' GAAATAGTTCTGTCAAAAATAG 1982
                                        CA
                                                CT
        Т
                     ACTAT TTT ATAGAACT TTTC
                     TGATA AAA TGTCTTGA AAAG
                       A C
                             T_
GAM138 FLJ21269 3' GAGGCTTATTAAAAATAGT 2138
                                          C
                                              AA
                     ACTAT TTTAATAG CTC
                     TGATA AAATTATT GAG
                           CG
GAM138 HNT
            3' GAAAAGAGTTTTAAAAAAAGA 1692
                                         AA
                     TCTTT TAGAACTCTTTTC
                     AGAAA ATTTTGAGAAAAG
                       AA
GAM138 KCNB2 3' AAAAGAGCTCTATTAGGA 3690
                                        Т
                                          Α
                     TCTT AATAGA CTCTTTT
                     AGGA TTATCT GAGAAAA
                      _ C
GAM138 KIAA0794 3' GAAAAGAACAAGAAAGATAG 3163
                                            AATAGAAC
                     CTATCTTT
                               TCTTTTC
                     GATAGAAA
                               AGAAAAG
                        GAACA
GAM138 LOC123342 5' GAAAAGAGTTCTAAACATGGT 3031
                                            C TAA
                     ACTAT TT TAGAACTCTTTTC
                     TGGTA AA ATCTTGAGAAAAG
                       C
GAM138 LOC1449203' AAAAGAGTTCTAAAGAAATAG 3270
                                           C AA
                     CTAT TTT TAGAACTCTTTT
```

```
_ AA
GAM138 LOC153688 3' GAAAAGAGTTTCTGCAAGATA 3370
                                             TAA
                     TATCTT TAGAA CTCTTTTC
                     ATAGAA GTCTT GAGAAAAG
                       С
                           Т
GAM138 LOC51336 5' GAAAAGAATTCTGTTGAAATCA 1707
                                            ATC
                                                   C
         GT
                      ACT TTTAATAGAA TCTTTTC
                     TGA AAGTTGTCTT AGAAAAG
                      CTA
GAM139 SCN1A 3' GAAAAACAAATTCTTAAATTTC 3451
                                          TΑ
                                                 C
         Α
                     TGG TTAAGAATT GTTTTTC
                     ACT AATTCTTAA CAAAAAG
                      TTA
GAM139 FLJ13315 5' GAAAAACGGAGGATTAAAACCA 2127
                                            A GAA
                     TGGT TTAA TTCGTTTTTC
                     ACCA AATT AGGCAAAAAG
                       A AGG
GAM139 KIAA0940 3' AAAATGGTATTATTAATACCAT 1584
                                              G _
                     TATGGTATTAA AAT TCGTTTT
                     ATACCATAATT TTA GGTAAAA
                         A T
GAM139 SARM
             3' GAAATATAATTCTTAATATCAT 1608
                                               СТ
                     TATGGTATTAAGAATT GT TTTC
         Α
                     ATACTATAATTCTTAA TA AAAG
GAM139 LOC144231 5' TGTAATTCTTAATACCAT 3266
                     ATGGTATTAAGAATT CG
                     TACCATAATTCTTAA GT
                           Т
GAM139 LOC148734 3' GAAAATGGGGCCCTTAATAC 3124
                                              AA
                     GTATTAAG TTCGTTTTT
                     CATAATTC GGGTAAAAG
                        CCG
GAM140 MBD1
             3' TTAAATATGCATCTGGCCCAGG 924
                                           С
                                             TTTTA
         AA
                      TTCCT GGCCA ATATTTAA
                     AAGGA CCGGT
                                  TATAAATT
                       C CTACG
GAM140 MBD1
             3' TTAAATATGCATCTGGCCCAGG 1644
                                            C TTTTA
         AΑ
                      TTCCT GGCCA ATATTTAA
```

GATA AAG ATCTTGAGAAAA

```
AAGGA CCGGT TATAAATT
                      C CTACG
            3' TTAAATATGCATCTGGCCCAGG 1645 C TTTTA
GAM140 MBD1
        AA
                     TTCCT GGCCA ATATTTAA
                    AAGGA CCGGT TATAAATT
                      C CTACG
GAM140 MBD1
            3' TTAAATATGCATCTGGCCCAGG 1646
                                          C TTTTA
                     TTCCT GGCCA ATATTTAA
        AA
                    AAGGA CCGGT
                                TATAAATT
                      C CTACG
GAM140 LOC254734 3' TTAAATATTCAGAACCGAGGA 3666
                                            CCA T
                    TCCTCGG TTT AATATTTAA
                    AGGAGCC AGA TTATAAATT
                       A C
GAM140 LOC51026 3' AAGTATTAAAACCAAGGAA 1659
                                         C CCA
                    TTCCT GG TTTTAATATTT
                    AAGGA CC AAAATTATGAA
                      Α __
GAM141 AICDA 3' TTGCAAGGAAATTGTGCTTTAT 1923
                                           C C
        С
                     GATAAAGC
                              TTCCT GCAA
                    CTATTTCG AAGGA CGTT
                       TGTTA A
GAM141 GCG
            3' GGAATAAAGTTTTATCAAA 895
                                         C___
                    TTTGATAAAGC TTCC
                    AAACTATTTTG AAGG
                        AAAT
GAM141 PTPN1 3' TTGCATCAAGGGCTTTATCAAA 960
                                             CCTC
                    TTTGATAAAGCCTT GCAA
                    AAACTATTTCGGGA CGTT
                          ACTA
GAM141 SCO2
            5' GCGAGGAGCATCAGA
                                1189
                                       AAA CT
                    TTTGAT GC TCCTCGC
                    AGACTA CG AGGAGCG
GAM141 UNG
            3' TGTGAGCTTTATCAGA
                               2394
                                        CTTCC
                    TTTGATAAAGC
                               TCGCA
                    AGACTATTTCG AGTGT
GAM141 UNG
            3' TGTGAGCTTTATCAGA
                               1013
                                        CTTCC
                    TTTGATAAAGC TCGCA
```

AGACTATTTCG AGTGT

```
GAM141 BM046 3' TGCAAGAAAAAGGACTTATTAA 1831
                                             AG C C
         Α
                      TTTGATAA CCTT CT GCA
                     AAATTATT GGAA GA CGT
                        CA AAA A
GAM141 DKFZP761G1913 3' TGCCAGGCTTTGCCAAA
                                        2209
                                              Α
                                                  TCCTC
                     TTTG TAAAGCCT GCA
                     AAAC GTTTCGGA CGT
                       С
                           С
GAM141 KIAA0057 3' GTGAGGAAGACTTTACCAA 1422
                     TTG TAAAG CTTCCTCGC
                     AAC ATTTC GAAGGAGTG
                      C A
GAM141 RTCD1 3' TTGCTGAGAAGGCTTCATTAAA 1053
                                            Α
                                                 C _
                     TTTGAT AAGCCTTC TC GCAA
                     AAATTA TTCGGAAG AG CGTT
                        С
                            _ T
GAM141 LOC127396 3' TGAGAAGGCCTTATTAAA 3005
                                            Α
                                                С
                     TTTGATAA GCCTTC TCG
                     AAATTATT CGGAAG AGT
GAM141 LOC130074 3' TGAGAGGCTTTATGAAA 3044
                                               TC
                                          G
                     TTT ATAAAGCCT CTCG
                     AAA TATTTCGGA GAGT
                      G
GAM141 LOC149134 5' TGCAGGAAAGTTTACCAAA 3308
                                           ATA C C
                     TTTG AAGC TTCCT GCA
                     AAAC TTTG AAGGA CGT
                       CA_ A _
GAM141 LOC219818 3' TTGCAAGGAAGGCCTAATCA 3503
                                            AAA
                                                  C
                     TGAT GCCTTCCT GCAA
                     ACTA CGGAAGGA CGTT
                       ATC
GAM141 LOC2567143' TGCTGGGCTTTAGCAAA
                                    3702
                                          Α
                                               TCCTC
                     TTTG TAAAGCCT
                                   GCA
                     AAAC ATTTCGGG CGT
                       G
                           \mathsf{T}_{\_}
GAM141 LOC91149 5' TGCAAAGAAGGTTTCCAGA 2714
                                           ATA
                                                 CTC
                     TTTG AAGCCTTC GCA
```

```
C__
                            AAA
                                             __ C TA
GAM142 ACADSB 3' CCATCATTTGGAAAAATAAAGG 838
        C
                     GCCTTTATT TCCA AT GATGG
                     CGGAAATAA AGGT TA CTACC
                        AA T
GAM142 EDAR
            3' CCATTTAAATGGGAATAAA 1985
                                           CA
                     TTTATTTCCA TTAGATGG
                     AAATAAGGGT AATTTACC
GAM142 MAX
            3' CCATTCCATGGAAATAAA 2515
                                          CATTA
                     TTTATTTCCA GATGG
                     AAATAAAGGT TTACC
                        ACC__
GAM142 MAX
            3' CCATTCCATGGAAATAAA 923
                                         CATTA
                     TTTATTTCCA GATGG
                     AAATAAAGGT TTACC
                         ACC
GAM142 MPO
            3' AATGTTTATGATAATAAAGGC 722
                                           _ C___
                     GCCTTTATT TC ACATT
                     CGGAAATAA AG TGTAA
                        T TATT
GAM142 NEK4 3' TAATGTAGAGATAAAAGC 995
                                      С
                                           C
                     GC TTTATTTC ACATTA
                     CG AAATAGAG TGTAAT
                     Α
                         Α
GAM142 C20orf170 3' CCAAAATAATAATGAAAATAAA 2608
                                             C C GA
        GGC
                       GCCTTTATTT CA ATTA TGG
                     CGGAAATAAA GT TAAT ACC
                         A AA AAA
GAM142 FLJ20435 3' CCATCTGGAGGAAATAAA 1756
                                           ACA
                     TTTATTTCC TTAGATGG
                     AAATAAAGG GGTCTACC
                        Α
GAM142 FLJ23071 3' CCATCTAATGTTTTAAAAGGC 2143
                                           ATTTCC
                     GCCTTT ACATTAGATGG
                     ШШ
                         TGTAATCTACC
                     CGGAAA
                       ATTT__
GAM142 KIAA0562 3' CCACTATAGCAAGAAATAAAGG 1525
                                              CACAT_ A
        С
                     GCCTTTATTTC TAG TGG
```

AGAC TTTGGAAG CGT

```
CGGAAATAAAG ATC ACC
                        AACGAT _
GAM142 LRRFIP1 3' CCACTTAATAAAAATAGAGGC 1151
                                         CCAC A
                    GCCTTTATTT ATTAG TGG
                    CGGAGATAAA TAATT ACC
                        AA__ C
GAM142 P115 3' CCATCTAATGTGATTGCTAAG 1051
                                       TATTTC
                    CTT CACATTAGATGG
                    GAA GTGTAATCTACC
                     TCGTTA
GAM142 SDCCAG16 3' CATTTTAAAAATAAAGGC 1316
                                          CCACATT
                    GCCTTTATTT AGATG
                    CGGAAATAAA
                                TTTAC
                        AAT
GAM142 TIAF1 3' GATGTATGGAAATAAAGGC 2370
                    GCCTTTATTTCC ACATT
                    CGGAAATAAAGG TGTAG
                         TΑ
GAM142 LOC149711 3' CCAAAATAATAATGAAAATAAA 3314
                                             C C_ GA_
        GGC
                      GCCTTTATTT CA ATTA TGG
                    CGGAAATAAA GT TAAT ACC
                        A AA AAA
GAM142 LOC169933 5' CCAGTAGGTGAAGATAAAGGC 3251
                                            C ATTAGA
                    GCCTTTATTT CAC TGG
                    CGGAAATAGA GTG ACC
                        A GATG
GAM143 SNX9 3' ACAAATTGTAAAGAATATGT 1673
                                        CCG
                    ACATAT TTACAATTTGT
                    TGTATA AATGTTAAACA
                       AGA
GAM143 TOX
            5' AACAAACCACAAACGGATGTG 1533
                                           ACAA_
                    CATATCCGTT TTTGTT
                    GTGTAGGCAA AAACAA
                        ACACC
GAM143 DKFZP434C212 3' AACAAATTGCATAGGAGTGT 2833 A GTTA
                    ACATITCC CAATTIGTT
                    TGTG AGG GTTAAACAA
                      _ ATAC
GAM143 LOC151438 5' AACAAACCAAAAACGGATATG 3345
                                             ACAA
                    CATATCCGTT TTTGTT
```

```
AAACC
GAM143 LOC221663 3' AACAAATTGCATGGATTTGT 3619 T TA
                     ACA ATCCGT CAATTTGTT
                     TGT TAGGTA GTTAAACAA
                      T C
GAM143 LOC257358 5' AACATGACTAACGGATATTC 3730 C CAATT
                     A ATATCCGTTA TGTT
                     C TATAGGCAAT ACAA
                     Т
                          CAGT
GAM143 LOC56832 3' AACAAATTGTGGATCATG 2703
                                          _ GTT
                     CAT ATCC ACAATTTGTT
                     GTA TAGG TGTTAAACAA
                      С
GAM144 SOX9 3' ATGATCCTAAAAATAACCG 732
                                        TG C
                     CG TGTTT AGGATCAT
                     GC ATAAA TCCTAGTA
                      CA AA
GAM144 FLJ14356 3' ATGAATGCAAACACATG 2171
                                           GGA
                     CGTGTGTTT CA TCAT
                     GTACACAAA GT AGTA
                         CA
GAM144 KIAA0982 3' ATGACCCTGAAATGACTG 1464 C G
                     CA GT TGTTTCAGG TCAT
                     GT CA GTAAAGTCC AGTA
                            С
GAM144 KIAA1028 3' ATGATCCTGAAGAAAAAGGTGA 3546
                                            ACGTGTG
                     TCACC
                           TTTCAGGATCAT
                     AGTGG
                           GAAGTCCTAGTA
                       AAAAA
GAM144 PCQAP 3' CCTTAAAACACACATGGGA 1649 A C
                                                \mathsf{C}_{-}
                     TC CCA GTGTGTTT AGG
                     11 111 11111111 111
                     AG GGT CACACAAA TCC
                      _ A
                            \mathsf{AT}
GAM144 PRKWNK2 3' GATCCTGAAATCAAGG
                                   3488
                                         ACG T
                     CC TG GTTTCAGGATC
                     GG AC TAAAGTCCTAG
                      A__ _
GAM144 RCD-8 3' ATGACCCTGAGATCGTG
                                 1491
                                        TGT
                                               Α
                     CACG GTTTCAGG TCAT
```

GTATAGGCAA AAACAA

```
GTGC TAGAGTCC AGTA
                            C
GAM144 SMOC2 3' ATGATCCTAAACTTTTTGG 2945
                                         CGTGT C
                     CCA GTTT AGGATCAT
                     GGT CAAA TCCTAGTA
                      TTTT_ _
GAM144 SYNJ2 3' ATCCTGAGCCATGGTG
                                 2605
                                        CGTT
                     CACCA TG GTT CAGGAT
                     11111 11 111 111111
                     GTGGT AC CGA GTCCTA
GAM144 TRABID 3' ATGACCCTAAAGTTAGTGTGGT 2823
                                            GTG C A
         G
                      CACCACGT TTT AGG TCAT
                     GTGGTGTG GAA TCC AGTA
                        ATT A C
GAM144 TSGA14 3' CTGTGGACACACAAGGTGA 1861
                                           AC
                     TCACC GTGTGTTT CAG
                     AGTGG CACACAGG GTC
                       AA
                            Т
GAM144 LOC197201 3' TCTGGAAAACAACACACGGTGA 3421
                                             AC
                     TCACC GTGTGT TTCAGG
                     AGTGG CACACA
                                  AGGTCT
                           ACAAA
GAM144 LOC219401 3' ATGAAGCAAACACACGTAGG 3579
                                                CAGGA
                     CC ACGTGTGTTT TCAT
                     GG TGCACACAAA AGTA
                           CGA
                                          C C CCAG
GAM145 INHBA 3' ACTAGAACAACCCAAATAGCA 904
                     TGCTATTT GG TG AGT
                     ACGATAAA CC AC TCA
                        C A AAGA
GAM145 TBXAS1 5' ACACTCTGAGAAAGAGCA 2182
                                         A GGCTGC
                     TGCT TTTC
                               CAGAGTGT
                     ACGA AAAG
                                GTCTCACA
                      GA_{-}
GAM145 TBXAS1 5' ACACTCTGAGAAAGAGCA 798
                                         A GGCTGC
                     TGCT TTTC
                               CAGAGTGT
                     ACGA AAAG
                                GTCTCACA
                      GA_{\underline{}}
                                                 CA_
GAM145 KIAA1056 5' ACACTTCAGCCGCAGCCAAATA 1576
                                              С
         GCA
                       TGCTATTT GGCTGC GAGTGT
```

```
GAM145 LOC197342 3' GACACCTGGCTGAGCCGGAACA 3424
                                             Α
                                                 __ A
        GCA
                       TGCT TTTCGGCT GCCAG GTGTC
                     ACGA AAGGCCGA CGGTC CACAG
                      C
                          GT
GAM145 LOC91752 5' GACACTCTAGATGAAA
                                  2779
                                         G GCC
                     TTTCG CT AGAGTGTC
                     AAAGT GA TCTCACAG
GAM146 FLJ11838 3' ATGAATAAACATATCTTG 2078
                     TAAGATATGTTTATTCAT
                     GTTCTATACAAATAAGTA
GAM147 ATP10C 3' AATACAGGAAACAAGAGGTAC 2062
                                         Т
                     GT CCTC GTTTCCTGTATT
                     CA GGAG CAAAGGACATAA
                     T AA
GAM147 CASP10 3' ACAGGGAACAAAGAAACA 2304
                                         CC
                     TGTT CT GTTTCCTGT
                     ACAA GA CAAGGGACA
                      A AA
GAM147 ZNF36 3' GGAAACAGAAACATAGA 3627
                                         CC
                     TCTATGTT CT GTTTCC
                     AGATACAA GA CAAAGG
GAM147 DORFIN 3' AATACAGGAAATAGATAAACAT 1630
                                           CC
        G
                     TATGTT TC GTTTCCTGTATT
                     GTACAA AG TAAAGGACATAA
                       AT A
GAM147 FLJ21313 3' AATACAGGATGAAAAACACTGA 2037
                                          TA CC TT
                     TC TGTT TCG TCCTGTATT
                     AG ACAA AGT AGGACATAA
                     TC AA _
GAM147 KIAA1819 5' AATACAGGAGATAGAACCAGA 2865
                                           AT CTC
                     TCT GTTC GTTTCCTGTATT
                     AGA CAAG TAGAGGACATAA
                      C_ A__
GAM147 P37NB 3' ATGGGAAAAAAAACATAGA 1254
                                          CCTCG
```

TCTATGTT TTTCCTGT

ACGATAAA CCGACG TTCACA

CCGAC

```
AGATACAA AAAGGGTA
                        AAA
GAM147 RAP140 5' ATACAGATAGAAACATAGA 1613
                                         CC GTTTC
                     TCTATGTT TC CTGTAT
                     AGATACAA AG GACATA
                        __ ATA__
GAM147 LOC127002 3' AATATAAAAACAGAAACATAGA 3002
                                             C C CC
                     TCTATGTT CT GTTT TGTATT
                     AGATACAA GA CAAA ATATAA
                        A A
GAM147 LOC132332 3' AATACAGTTGCAGAGGAGCATA 3046
                                               TTC
                     TATGTTCCTC GT CTGTATT
                     ATACGAGGAG CG GACATAA
                         A TT
GAM147 LOC145624 5' ACTAGAAGAGGAACATA
                                   3276
                                            GT CT
                     TATGTTCCTC TTC GT
                     ATACAAGGAG AAG CA
                        __ AT
GAM148 NR4A2 3' AATAGTATTTCAGACACTATG 1277
                                              CA
                     TATAGT TCTGAAAT TATT
                     GTATCA AGACTTTA ATAA
                       С
                           TG
GAM148 PRKCN 3' ATGATTATTCCAGATACTGTA 1252
                     TATAGTATCTG AATCAT
                     ATGTCATAGAC TTAGTA
                         CTTA
GAM148 BIVM 3' ATGGTGGGTGATTTCAGATAT 1739
                                             ΑT
                     GTATCTGAAATCAT TCAT
                     TATAGACTTTAGTG GGTA
                          GGT
GAM148 DCLRE1A 3' ATGAAGATTGTTCAGATACT 2843
                                             ATCATA
                     AGTATCTGAA
                                TTCAT
                     TCATAGACTT
                                AAGTA
                         GTTAG
GAM148 EBF2 3' ATGAAGCCTTTCAGATAC 1995
                                          TCATA
                     GTATCTGAAA TTCAT
                     CATAGACTTT
                                AAGTA
                         CCG_{\_}
GAM148 FLJ10852 3' GAATATTTTCAGATACTATA 1873
                                             TC
                     TATAGTATCTGAAA ATATTC
```

ATATCATAGACTTT TATAAG

GAM148 FLJ20220 3' ATGAATAACATTTCAGATAC 1742 CA GTATCTGAAAT TATTCAT CATAGACTTTA ATAAGTA CA GAM148 FLJ21952 3' ATGATATTCTAGATACTATA 1992 TATAGTATCT GAA ATCAT ATATCATAGA CTT TAGTA ТА GAM148 MGC10724 3' ATGAAGACCCAGATACTA 2274 AAA ATA TAGTATCTG TC TTCAT ATCATAGAC AG AAGTA CC GAM148 MGC4238 3' ATGGAAGGACTTCAGATAC 2247 A ATA GTATCTGAA TC TTCAT CATAGACTT AG AGGTA C GA GAM148 Rab11-FIP2 3' ATGACAGTATCTGCAGATACTA 1581 AAATCATAT TA TATAGTATCTG Ш ATATCATAGAC **AGTA GTCTATGAC** GAM148 LOC90768 3' ATGAAGGTGTGTCCCAGATATT 2674 AAAT A TAGTATCTG CAT TTCAT Α ATTATAGAC GTG AAGTA CCTGT G GAM149 ANPEP 3' CTAAATCTGAGGAATCAAC 805 CT TA GTTGAT CTCA GATTTAG CAACTA GAGT CTAAATC AG __ 3' TCTAAATCACCAGAGACCAAAC 724 GAM149 NP GA_ CATA GTT TCTCT GATTTAGA CAA AGAGA CTAAATCT ACC CCA GAM149 TFAP2C 3' CTAGATCAACAGATCAAC 1000 **CTCATA** GTTGATCT GATTTAG CAACTAGA CTAGATC CAA_ GAM149 ZNF83 5' CTAAATGTGAGATCAAGGA 1813 G T AGAT TC TTGATCTC CAT TTAG

```
AG AACTAGAG GTA AATC
                     G
                         Т _____
GAM149 MGC26766 3' TTTACATCATGAGAGATCAA 2509
                                           ΑТ
                    TTGATCTCTCAT GAT TAGA
                    AACTAGAGAGTA CTA ATTT
                        _ C
GAM149 SCYB10 3' TCTAAATGTTGAAAGATCAA 836
                                         C TAG
                    TTGATCT TCA ATTTAGA
                    AACTAGA AGT TAAATCT
                       A TG
GAM150 EBAF
            3' TACAGCTGAGCAATGCA 2721
                                       CG AAATA
                    TGCAT GT TAGCTGTA
                    ACGTA CG GTCGACAT
                      A A
GAM150 F7 3' ATACGCAAACACACCGATGCA 706
                                        AAATATA T
                    TGCATCGGT GC GTAT
                    CG CATA
                    ACGTAGCCA
                       CACAAA_ _
GAM150 F7 3' ATACGCAAACACACCGATGCA 1885
                                        AAATATA T
                    TGCATCGGT GC GTAT
                    ACGTAGCCA CG CATA
                       CACAAA
GAM150 MGC3771 3' TAGAACATTTACCGATGC 2178
                                           ATAG
                    GCATCGGTAAAT CTG
                    CGTAGCCATTTA GAT
                         CAA
GAM150 LOC146438 3' TAGAACATTTACCGATGC 3091
                                           ATAG
                    GCATCGGTAAAT CTG
                    CGTAGCCATTTA GAT
                         CAA_
GAM151 BPGM 3' TAAGAAGAAATGCAAAAG 852
                                      CG
                    CTT GCATTTCTTTTA
                    GAA CGTAAAGAAGAAT
                     AA
GAM151 HAS2
            3' AAATGAAATGCCAAAGGAA 1198
                                        C T
                    TTCCTT GGCATTTC TTT
                    AAGGAA CCGTAAAG AAA
                      Α
                          Т
GAM151 HDAC2 3' CATTAAAAAGAAAATATTGAAA 3507 _ CA_
        GGAA
                      TTCCTT CGG TTTCTTTTTAATG
```

```
A ATA
GAM151 XRCC2 3' CATTAAAAAGTGGGCAAAGGA 1208
                                          CG ATTT
                    TCCTT GC CTTTTTAATG
                    AGGAA CG GAAAAATTAC
                      A GGT
GAM151 APACD 3' CATTAAAAAGAAACCAGGAA 1249
                                         TC CA
                    TTCCT GG TTTCTTTTAATG
                    AAGGA CC AAAGAAAAATTAC
GAM151 SCIN
            3' CATTAAAATAACCTGAAGGAA 2313
                                          CATTTCT
                    TTCCTTCGG
                               TTTTAATG
                    AAGGAAGTC
                               AAAATTAC
                        CAAT
GAM151 USP16 3' CATTAAATACATGCCAGAAG 1303
                                         TTCTT
                    CTTC GGCAT TTTAATG
                    GAAG CCGTA AAATTAC
                      A CAT
GAM151 LOC1150043' AAAAGAAATCCGAAAGAA 2970
                                         C
                    TTC TTCGG ATTTCTTTT
                    AAG AAGCC TAAAGAAAA
GAM151 LOC146520 5' GAAGAGAAATGCCATAGGAA 3096
                                           TC
                    TTCCT GGCATTTCTTTTT
                    AAGGA CCGTAAAGAGAAG
                      TΑ
GAM151 LOC219333 3' CATTAAAAAAAAAACATGCCG 3607
                                           С
                    CGGCAT TT TTTTTAATG
                    GCCGTA AA AAAAATTAC
                       CA A
GAM152 EIF1A 3' CTTTGTGTTTTTTGGTTTACCCT 3442 A
                                             TCT
                    AG TAAACTAAA CGCAAAG
                    TC ATTTGGTTT GTGTTTC
                     CC
                          TT
GAM152 ENAM
            3' TTTGTTTTTAGTTATCTTA 2217
                                        Α
                                          TCTC
                    TAAGATAA CTAAA GCAAA
                    ATTCTATT GATTT TGTTT
                          T_
GAM152 MYCL1
            3' TTTGTGGTAGCTTATCTTA 1204
                                         A AATC
```

TAAGATAA CTA TCGCAAA

AAGGAA GTT AAAGAAAAATTAC

```
ATTCTATT GAT GGTGTTT
                         С
                                              AATCT _
GAM152 ZNF42 5' CTTTGATGTATTCTAGTTTATC 1018
         Т
                      AGATAAACTA CG CAAAG
                      TCTATTTGAT GT GTTTC
                          CTTAT A
GAM152 FLJ23604 3' AGAATATAGTTTATCTTA 2134
                                              AA_
                      TAAGATAAACTA TCT
                      ATTCTATTTGAT AGA
                           ATA
GAM152 HEY2
             3' AGATCTAGTTTTATCTTA 1419
                                           _ A
                      TAAGATAAA CTA ATCT
                      ATTCTATTT GAT TAGA
                          T C
GAM152 TSC22 3' TGGGACCTAGGCTATCTTA 1265
                                            AA AA
                      TAAGATA CTA TCTCG
                      ATTCTAT GAT AGGGT
                         CG CC
GAM153 FLJ20296 3' ACATTAATAAATTTATTGATTC 1748
                                           A CAA
                       TG AATC GGATTTATTAATGT
         CA
                      AC TTAG TTTAAATAATTACA
                       C TTA
GAM153 RAB22A 3' ACATTAATAAATTCTAAGTTTC 2546
                                             CCA
                      TGAAAT AGGATTTATTAATGT
         Α
                      ACTTTG TCTTAAATAATTACA
                        AA
                                                _ TTTATT
GAM153 UPLC1 3' ACATTTGTTCTCTTGGATCTCA 1740
                                            Α
                      TGA ATCCAAG GA AATGT
                      11111
                      ACT TAGGTTC CT
                                     TTACA
                       С
                           T TGT
GAM153 LOC122886 3' ACACTGTGTTCCTTGGACCTC 3028
                                             AA
                                                  TT TAA
                      GA TCCAAGGA TAT TGT
                      11 11111111 111 111
                      CT AGGTTCCT GTG ACA
                       CC
                            T_ TC_
GAM153 LOC222194 3' ACATCATCTGTTCTTGGACCTC 3637
                                              AA
                                                    TTATTA
         Α
                      TGA TCCAAGGAT ATGT
                      111 111111111
                              Ш
                      ACT AGGTTCTTG
                                     TACA
                             TCTAC_
                       CC
GAM154 ITGB1
             3' AGTAAATGTCCTGCTA
                                  909
                                            GA
```

TAGCAGGACATT TGCT

ATCGTCCTGTAA ATGA

GAM154 RHO 3' TCTAGAGCATGGAGCCTCTA 754 C ACA G TAG AGG TT ATGCTCTAGA ATC TCC AG TACGAGATCT _ G__ G GAM154 XPNPEP2 3' CTGGGTCCACATCCTGCTA 1015 CAT AT T TAGCAGGA TG GC CTAG ATCGTCCT AC TG GGTC AC C GAM154 FLJ12700 3' CTAGAACAGGATGTCCTGC 2110 GA C GCAGGACATT TG TCTAG CGTCCTGTAG AC AGATC G A GAM154 FLJ13291 3' GTCCAGAGTTAACTGCCCTGCT 2234 A TTGAT A G TAGCAGG CA GCTCT GAC GTCGTCC GT TGAGA CTG C CAAT C GAM154 FLJ20811 5' CTAGAGCACAAGTCCTGCTA 2782 A A TAGCAGGAC TTG TGCTCTAG ATCGTCCTG AAC ACGAGATC GAM154 KIAA1643 3' TCCAGAGCCTCTGTCCTGC 2693 TT T A GCAGGACA GA GCTCT GA CGTCCTGT CT CGAGA CT СС GAM154 KIAA1755 3' TCCAGAGCATTTATCTGC 2596 ACATT GCAGG GATGCTCT GA CGTCT TTACGAGA CT AT___ С GAM154 KIAA1762 3' GTCTAGAGCACCACACCGCT 2669 A ACAT A AGC GG TG TGCTCTAGAC TCG CC AC ACGAGATCTG _ AC__ C GAM154 MGC13033 5' TCCAGAGCATTCCTTCTA 2199 C CATTG Α TAG AGGA ATGCTCT GA ATC TCCT TACGAGA CT Т С GAM154 SLC7A3 5' TCTTCTTCAATTCCTGCTA 2281 C TGCTCT

TAGCAGGA ATTGA AGA

```
ATCGTCCT TAACT
                                   TCT
                          TCT___
GAM154 LOC112609 3' GTCTAGAGTGATCCATCC 2960
                                         CATT _
                    GGA GAT GCTCTAGAC
                    CCT CTA TGAGATCTG
                      AC G
GAM154 LOC157349 5' GTCCAAAAGTTTAACTGTCCTG 3201
                                             _ T CTA_
        C
                     GCAGGACA TTGA GCT GAC
                     CGTCCTGT AATT TGA CTG
                        C AAAC
GAM154 LOC90625 3' TCCAGATGATGCTCCTGCTA 2662
                                               ATGC A
                    TAGCAGGA CATTG TCT GA
                    ATCGTCCT GTAGT AGA CT
                          С
                        С
GAM155 MGAT4B 5' CCGCTACAAGGACAGTG
                                   2360
                                         ATAT TC
                    CACT GTT TGTAGCGG
                    GTGA CAG ACATCGCC
                       ___ GA
GAM155 PRKAR2A 3' GCCACAGAACACATACAG 1091
                                         Α
                                               Α
                    CT TATGT TTCTGT GC
                    GA ATACA AAGACA CG
                     C
GAM155 SCD
            3' GCCACGGAAACATACAGAGGA 1177
                                         A
                                                Α
                    TCC CT TATGTTTCTGT GC
                    AGG GA ATACAAAGGCA CG
                      A C
                            С
GAM155 DKFZp761H079 3' GCCACCTGAAACATAAAATGGA 2506
                                              CTA
                                                    T A
                    TCCA TATGTTTC GT GC
                    AGGT ATACAAAG CA CG
                            TC C
                      AAA
GAM155 KIAA0417 3' GCCATGATGGAAACAGATAGTG 2910
                                                 AGC
                    CACTAT TGTTTCTGT GGC
                     GTGATA ACAAAGGTA CCG
                       G
                           GTA
GAM155 LRBA
            3' CCAATTATGGAAACATACAGTG 1327
                                          Α
                                                 C_{-}
        GA
                      TCCACT TATGTTTCTGTAG GG
                    AGGTGA ATACAAAGGTATT CC
                       C
                             AA
GAM155 SYAP1 3' GCCACAGAAACATAAGT
                                 2279
                                       Α
                                            Α
                    ACT TATGTTTCTGT GC
```

```
TGA ATACAAAGACA CG
                          C
GAM155 LOC143188 5' ACAGAAACTATAGCAGA 3264 CA T
                    TC CTATA GTTTCTGT
                    AG GATAT CAAAGACA
                     AC _
GAM155 LOC157292 3' GCCTCAGAAACATAAGTG 3378
                                       Α
                                             TΑ
                    CACT TATGTTTCTG GC
                    GTGA ATACAAAGAC CG
                          TC
GAM156 C18orf1 3' AGTCATTATTGTTGCAGGA 2561
                                       T TT
                    TCC GCA AT TAATGACT
                    AGG CGT TG ATTACTGA
                     A TT
GAM156 CRYZ 3' AAGAGTCATCATAGTAGGAA 866 GCA TTTA
                    TTCC TAT ATGACTCTT
                    AAGG ATA TACTGAGAA
                      ATG C
GAM156 TRPC5 3' GAAGTGTCAAAATATGAGAA 1434
                                        CG
                                            TAA T
                    TTC CATATTT TGAC CTTC
                    AAG GTATAAA ACTG GAAG
GAM156 DAP13 3' GAAGAACAGTTGAAACATGC 1862
                                            GAC
                                        Α
                    GCAT TTTTAAT TCTTC
                    CGTA AAAGTTG AGAAG
                      С
                         ACA
GAM156 DKFZP564O0463 3' GAAGAGCCATTACATGC
                                     1481 ATTT A
                    GCAT TAATG CTCTTC
                    CGTA ATTAC GAGAAG
                     C___ C
GAM156 GRID1 3' AAGAACCATTAGGAGTGGAA 2822
                                        ATA
                                               AC
                    TTCCGC TTTTAATG TCTT
                    AAGGTG AGGATTAC AGAA
                            CA
GAM156 MGC30052 3' AAGACTTTTTTGAAAATATGCA 2499 C
                                              AAT__ C
        GAA
                      TTC GCATATTTT GA TCTT
                    AAG CGTATAAAA TT AGAA
                         GTTTT C
                     Α
GAM156 MGC32104 5' AAGAGTCATGCTGTGATGAA 2494
                                         CG TTTTA
```

TTC CATA ATGACTCTT

```
AAG GTGT TACTGAGAA
                      TA CG
GAM156 SCN9A 5' GAAGAGGAATTAAAATATACAG 975
                                          GC
                                                GA
        GA
                      TCC ATATTTTAAT CTCTTC
                     AGG TATAAAATTA GAGAAG
                      ACA
                            AG
GAM156 STK17A 3' AGTCCAATTAAAATATGGAA 1154
                                         GC
                    TTCC ATATTTTAAT GACT
                     AAGG TATAAAATTA CTGA
                           AC
GAM156 LOC148738 3' AAGAATCATTAAAGGAAGC 2519
                                         ATA
                     GC TTTTAATGA TCTT
                     CG GAAATTACT AGAA
                     AAG
GAM157 BLMH
            3' GGTGGCCTAAGAGTTGAGCTC 734
                                           A CT
                    GAGCTCAAC CTTA CCGCC
                     CTCGAGTTG GAAT GGTGG
                        A CC
GAM157 BLVRB 3' GGCAATAAATGTTGAGCC 768 A
                                           C CTCC
                     G GCTCAACA TTA GCC
                     1 11111111 111 111
                     C CGAGTTGT AAT CGG
                         A AA
GAM157 DHCR7
             3' GGTAGCGTGCACGGTGTTGAAC 821
                                             TACTC C
                                         С
        Т
                     AG TCAACACT CGC ACC
                     TC AGTTGTGG GCG TGG
                         CACGT A
                     Α
                                           _ AAC
             3' GGTGACAGAGTGAGTGAGACTC 2032
GAM157 FGFR1
                     GAG CTC ACTTACTC CGCC
                     CTC GAG TGAGTGAG GTGG
                             ACA
                      Α ____
GAM157 FGFR1
             3' GGTGACAGAGTGAGTGAGACTC 2034
                                           _ AAC
                     GAG CTC ACTTACTC CGCC
                     CTC GAG TGAGTGAG GTGG
                      Α ____
                             ACA
            3' GGTGACTTGAGCTC 1200
GAM157 HEM1
                                           CA CTC
                     GAGCTCAA CTTA CGCC
                     CTCGAGTT GAGT GTGG
                        C_ TCA
GAM157 NT5C3 5' GGTGGCGGGGGTGGTGCTGGCT 1689
                                           T A TA
        С
                     GAGC CA CACT CTCCGCCACC
```

```
CTCG GT GTGG GGGGCGGTGG
                     _ C TG
GAM157 OTOR 3' GCGGGGAAATGTTGAGCTC 1894
                                        СА
                   GAGCTCAACA TT CTCCGC
                   CTCGAGTTGT AA GGGGCG
GAM157 PRPSAP2 5' GCAATCAGTAAAACATTGAGCT 954
                                         CAC_ CC__
        С
                    GAGCTCAA TTACT GC
                    CTCGAGTT AATGA CG
                      ACAA CTAA
GAM157 C14orf4 5' GGTGGCGGAGGCCCCCAGCTC 2788
                                         CAACACTTA
                   GAGCT CTCCGCCACC
                   CTCGA GAGGCGGTGG
                     CCCCCG
GAM157 CG012 3' GGCGACAGAGTGAGTGAGACTC 3272
                                        _ AAC
                   GAG CTC ACTTACTC CGCC
                   CTC GAG TGAGTGAG GCGG
                    Α ____
                          ACA
GAM157 DKFZP434K2235 5' GGTGGCGGGTAACGCCGGACTC 3278 C AACAC T
                   GAG TC TTAC CCGCCACC
                   CTC AG AATG GGCGGTGG
                    GCCGC _
GAM157 FLJ20699 3' GGTGCAAGGATTGAGCTC 1766 CA ACTC
                   GAGCTCAA CTT CGCC
                   CTCGAGTT GAA GTGG
                      AG C
GAM157 FLJ23129 3' GGCAACAGGAGAATGTCAAGCC 2088 A CA C A
                   G GCT ACA TT CTCC GCC
                   C CGA TGT AA GAGG CGG
                    _ AC _ _ ACAA
GAM157 HSPC065 3' GTGACGGAGTAGAAGCTT 1482
                                        CAACAC
                                                С
                   GAGCT TTACTCCG CAC
                    TTCGA GATGAGGC GTG
                     Α
                             Α
GAM157 KIAA0960 3' GGTAATTTAAGTGTTGAAGT 3572
                                           CTCC
                   GCT CAACACTTA GCC
                   TGA GTTGTGAAT TGG
                    Α
                         TTAA
GAM157 MGC12466 3' GGTAAAGGAGTGTTGAACTC 3127
                                        С
                                             A CC
```

GAG TCAACACTT CT GCC

```
CTC AGTTGTGAG GA TGG
                      Α
                         _ AA
GAM157 MGC12904 3' GCAGTGAGTGCTGAGCTC 2184
                                               CC
                    GAGCTCA CACTTACT GC
                    CTCGAGT GTGAGTGA CG
                       C
GAM157 MSTP028 3' GGCAGTAAGTGTCCAGCTC 2224
                                          CA
                                                CC
                    GAGCT ACACTTACT GCC
                    CTCGA TGTGAATGA CGG
                      CC
GAM157 RAB24 5' TGACGGAGTAGCGAGCT 2397
                                        AACAC
                    AGCTC TTACTCCG CA
                    TCGAG GATGAGGC GT
                       С
                             Α
GAM157 LOC113828 5' TGAGGAGACGTTGAGCTC 2439
                                            ACTTA GC
                    GAGCTCAAC CTCC CA
                    CTCGAGTTG GAGG GT
                        CA___ A_
GAM157 LOC152300 5' GTGGACAGCATTGAGCTC 3169
                                           CA TAC
                    GAGCTCAA CT TCCGC
                     1111111 11 11111
                     CTCGAGTT GA AGGTG
                        AC C
GAM157 LOC197125 3' GGCAGGTAACATTGAGCTC 3420
                                            CAC CC
                    GAGCTCAA TTACT GCC
                    CTCGAGTT AATGG CGG
                        AC_ A_
GAM157 LOC219848 3' GGTGACAGAGTAGGTGCTC 3528
                                           TCAAC
                    GAGC ACTTACTC CGCC
                     CTCG TGGATGAG GTGG
                             ACA
GAM157 LOC51157 5' GGTGGCGGGGTTTTGCAGAGCT 1671
                                            AA CTT
        C
                     GAGCTC CA ACTCCGCCACC
                     CTCGAG GT TGGGGCGGTGG
                       AC TT_
GAM157 LOC92270 5' GGTGACAGAGTGAGTGAGACTC 2828
                                            _ AAC
                    GAG CTC ACTTACTC CGCC
                    CTC GAG TGAGTGAG GTGG
                      A ___ ACA
                                             A C G_
GAM158 B3GALT3 3' GCTGGTGTAAACAAACCTACTA 1057
        CA
                      TGTGGTAG TTTGTT TATA AGC
```

```
C _ GG
GAM158 KIAA1985 5' GCTCTGTATTAAAACAAATCCA 2066
                                           Α
                                              С
        CCA
                      TGGT GATTTGTT TATAGAGC
                     ACCA CTAAACAA ATGTCTCG
                      C
                          AATT
GAM158 MCM10 3' CTATGCAAATTACCACA
                                 1835
                                         Α
                                            TCT
                     TGTGGT GATTTGT ATAG
                     ACACCA TTAAACG TATC
GAM158 LOC149707 5' CTCCACAACATCTACCA
                                   3137
                                           _ TCTATA
                     TGGTAGAT TTGT
                                   GAG
                     ACCATCTA AACA
                                   CTC
                        C C
GAM158 LOC200227 5' CTCCACAACATCTACCA
                                   3446
                                           TCTATA
                     TGGTAGAT TTGT
                                   GAG
                     ACCATCTA AACA
                                   CTC
                        CC
GAM158 LOC255718 5' GCTCTATAGAACATGTCTAC 3741
                                           Т
                     GTAGAT TGTTCTATAGAGC
                     CATCTG ACAAGATATCTCG
GAM159 DSG3
            3' TTAAATGTTTGGGTTCATAC 873
                                        С
                     GTAT ATTTAAACATTTAA
                     CATA TGGGTTTGTAAATT
                      CT
GAM159 LPIN1 3' AAATGATAATGATACTG
                                2791
                                         TAAA
                     CAGTATCATT CATTT
                     GTCATAGTAA GTAAA
                        TA__
GAM159 TRPM1 3' AAATGAAAGTGATGATACTGT 928
                                            TAAA_
                     ACAGTATCATT CATTT
                     TGTCATAGTAG GTAAA
                         TGAAA
GAM159 DEPP
            3' GTTAAATGTTTTCTGTCTTCTG 1347
                                          TAT_ TTT
        TT
                      AACAG CA AAACATTTAAC
                     TTGTC GT TTTGTAAATTG
                      TTCT CT_
GAM159 FLJ20668 3' TTAAATGGACCATGATACT 1764
                                           TTAAA
```

AGTATCAT CATTTAA

ACATCATC AAACAA ATGT TCG

```
CCAG
GAM159 KIAA1524 5' TAAATGTTTAGAACCTACTGT 2975
                                            TCA
                     ACAGTA TTTAAACATTTA
                     TGTCAT AGATTTGTAAAT
                        CCA
GAM159 PRO1617 5' AAATCAGTGAATGGTACTG 1850
                                              AAC
                     CAGTATCATTTA ATTT
                     GTCATGGTAAGT TAAA
                          GAC
GAM159 SDF1
            3' GTTAAATGTGATGAATACTGT 3502
                                             TAA
                     ACAGTAT CATT ACATTTAAC
                     TGTCATA GTAG TGTAAATTG
GAM159 LOC130074 3' GTTAGGTGTCAATTGATACT 3043
                                             TTTAA
                     AGTATCA ACATTTAAC
                     TCATAGT TGTGGATTG
                        TAAC
GAM159 LOC146952 5' TAAATGTAATTTTATGTACTGT 3287
                                             T TT __
         Т
                      AACAGTA CAT AA ACATTTA
                     TTGTCAT GTA TT TGTAAAT
                        _ TT AA
GAM159 LOC157983 3' TTGCATGTTAAATGATACT 3208
                                              A T
                     AGTATCATTTAA CAT TAA
                     TCATAGTAAATT GTA GTT
                                              А Т
GAM159 LOC203289 3' TTGCATGTTAAATGATACT 3463
                     AGTATCATTTAA CAT TAA
                     TCATAGTAAATT GTA GTT
                          _ C
GAM159 LOC256544 3' TTGCATGTTAAATGATACT 3695
                                              A T
                     AGTATCATTTAA CAT TAA
                     TCATAGTAAATT GTA GTT
                          _ C
GAM160 APPL
            3' AGAACAGAGATTTTACAGT 1405
                                              CA
                                         Α
                     ATTG TAAAATCTC TTCT
                     TGAC ATTTTAGAG AAGA
                           AC
GAM160 F8
           3' AATGGAGAGAATACAATA 708
                                       A AAA
```

TATTG TA TCTCCATT

TCATAGTA GTAAATT

```
ATAAC AT AGAGGTAA
                      _ AAG
GAM160 RAB6A 3' AGAATGGAAATAAAACTCAATA 966
                                           TAAA C
        TTA
                      TAATATTGA AT TCCATTCT
                    ATTATAACT TA AGGTAAGA
                        CAAAA A
GAM160 RNF14 3' AGAATGGAAATTTATAATAT 1097
                                        ATA C
                    ATATTG AAAT TCCATTCT
                    TATAAT TTTA AGGTAAGA
                       A A
GAM160 SART2 3' AGAATTGGGTTTTATTAATATT 1443
                                              CC
        Α
                     TAATATTGATAAAATCT ATTCT
                    ATTATAATTATTTTGGG TAAGA
                           Т
GAM160 EEA1 3' AATGGTTTTTGTTTTAACAATA 1035
                                          A CT
        TTA
                      TAATATTG TAAAAT CCATT
                    ATTATAAC ATTTTG GGTAA
                       A TTTTT
GAM160 FLJ10980 3' AGAATGGAGTGTACCAAATTA 2697
                                          A A AAAT
                    TAAT TTG TA CTCCATTCT
                    ATTA AAC AT GAGGTAAGA
                      _ C GT__
GAM160 FLJ22794 3' AATGGTCATCTTATCAATA 3532
                                          A CT
                    TATTGATAA AT CCATT
                    ATAACTATT TA GGTAA
                        C CT
GAM160 KIAA1328 3' AGAATGGAGCCCACTAATATTA 2601
                                          ATAAAAT
                    TAATATTG CTCCATTCT
                    ATTATAAT GAGGTAAGA
                        CACCC
GAM160 PRO0902 3' AATGGAGATCAATTTTA 2357 T TAAAA
                    TAA ATTGA TCTCCATT
                    ATT TAACT AGAGGTAA
                      Т
GAM160 RASGRP4 3' AGAACAGGGATTTCTATCAATG 2348
                                                 CA
```

ATATTGATA AAATCTC TTCT

TGTAACTAT TTTAGGG AAGA

_ AA

AC

TG ATAA TCTCCATTCT

С

3' AGAATGGAGACTTATACA 1363

Т

GAM160 WBP4

```
A C_
GAM160 LOC1161503' AGAATGGAGCAGTTTAATA 2443
                                          TAAAAT
                     TATTGA CTCCATTCT
                        111111
                     ATAATT GAGGTAAGA
                       TGAC
GAM160 LOC1642005' AATGAGGTTGTTATCAATA 3248
                                             _ C
                     TATTGATAA AATCTC ATT
                     ATAACTATT TTGGAG TAA
                        G
GAM160 LOC51320 3' AGAATGATAAATTATCAATAT 1702
                                            AATCTC
                     ATATTGATAA CATTCT
                     TATAACTATT
                                GTAAGA
                        AAATA
GAM161 SELPLG 3' CCAAACAGGAAGTGGACATTCT 2539
                                           A CG C
                     AGAAT TCCAT TTTG TTGG
                     TCTTA AGGTG GGAC AACC
                       C AA A
                                            CC C C
GAM161 FLJ21144 3' CCAAAACATAAACAATAAATAT 2007
                       TGAGAATAT AT GTTTG TTGG
        TCTCA
                     ACTCTTATA TA CAAAT AACC
                        AA A ACAA
GAM161 KIAA0676 3' CAAAGTGATGGAACCCTCA 1603
                                          AATA
                     TGAG TCCATCG TTTG
                     ACTC AGGTAGT AAAC
                      CCA_
                            G
                                         A C GTTT
GAM161 KIAA1393 3' CAAGTGATGAATATGCTCA 2935
                     TGAG ATAT CATC GCTTG
                     ACTC TATA GTAG TGAAC
                      G A
GAM161 UBN1
            3' CCAAGTCACAGATAGACATTCC 1716
                                         A A C GTTT
                     TG GAAT TC ATC GCTTGG
        Α
                     AC CTTA AG TAG TGAACC
                      _ C A ACAC
GAM162 CELSR3 3' AGAACTGAAGACTTTAA
                                  824
                                          TAT
                     TTAAAGTCTTC TTCT
                     AATTTCAGAAG AAGA
                         TC_{-}
GAM162 GPR85 3' TAGAAGTTTGAAGACTTTAA 1868
                                            T_
                     TTAAAGTCTTC ATTTCTA
```

AC TATT AGAGGTAAGA

```
AATTTCAGAAG TGAAGAT
                         TT
GAM162 ITGAV 3' TAGAAATGGAGAGTTTAATA 908
                                          G T
                     TATTAAA TCT CTATTTCTA
                     ATAATTT AGA GGTAAAGAT
                        G _
GAM162 MAPRE2 3' TAGAAGTGAAGACCTTA
                                   1487
                                           Т
                                         Α
                     TAA GTCTTC ATTTCTA
                     ATT CAGAAG TGAAGAT
                      С
GAM162 PAX6
            5' AGGGGAAGACTTTAA
                                 837
                                           ΑT
                     TTAAAGTCTTCT TTCT
                     AATTTCAGAAGG GGGA
GAM162 PAX6 5' AGGGGGAAGACTTTAA
                                 726
                                          AΤ
                     TTAAAGTCTTCT TTCT
                     AATTTCAGAAGG GGGA
GAM162 SLC24A1 3' TAGAAATAGAACAGCTTAATA 1150
                                            A C
                     TATTAA GT TTCTATTTCTA
                     ATAATT CG AAGATAAAGAT
                       _ AC
GAM162 SLC31A1 3' TAGAAATAGATATTTTTAA 864
                                          TCT
                     TTAAAG TCTATTTCTA
                     AATTTT AGATAAAGAT
                       TAT
GAM162 SLC4A7 3' TAGAACAATAGAAACTTTAATA 1043
                     TATTAAAGT TTCTATT TCTA
                     ATAATTTCA AAGATAA AGAT
                            CA
GAM162 ZNF22 3' TAGAAATAGAGATGCTTTA 3527
                                          C_{-}
                     TAAAGT TTCTATTTCTA
                     ATTTCG GAGATAAAGAT
                       TA
GAM162 ARGBP2 5' GGAAAACTGAAGACTTTAATA 1041
                                               TA_
                     TATTAAAGTCTTC TTTCT
                     ATAATTTCAGAAG AAAGG
                          TCA
GAM162 C20orf7 3' AGAAATGGATAGCTTTAA 2056
                                          CT
```

TTAAAGT TCTATTTCT

A	ΔT	ΤТ	CG	AGG [*]	TA.	AΑ	GA

AΤ GAM162 FLJ12704 3' AGAACGCTGGACTTTAATG 2125 **TCTAT** TATTAAAGTCT TTCT GTAATTTCAGG AAGA TCGC GAM162 FLJ13194 3' TAGAAATGTTCTCAGACTTTAA 2141 TC___ TTAAAGTCT TATTTCTA AATTTCAGA GTAAAGAT CTCTT GAM162 FLJ20005 3' AGAAAAAGACTTTAA 1731 **CTA** TTAAAGTCTT TTTCT AATTTCAGAA AAAGA GAM162 FLJ20417 5' TAGAAATAAACAAGGCTTTA 1754 C__ TAAAGTCTT TATTTCTA ATTTCGGAA ATAAAGAT CAA 1529 GAM162 KIAA0712 3' AGAAATTAAGACTTTAA CT TTAAAGTCTT ATTTCT AATTTCAGAA TAAAGA Т GAM162 KIAA0750 5' AGAAAGAGAAGACTTTAA 1510 Α TTAAAGTCTTCT TTTCT **AATTTCAGAAGA AAAGA** G GAM162 KIAA1128 3' TAGAGTATTCAGACTTTGATA 2821 TCTAT TATTAAAGTCT TTCTA ATAGTTTCAGA GAGAT CTTAT GAM162 KIAA1281 3' TAGAAGAGAGAGACTTTAA 3461 TTAAAGTCT TCT TTTCTA AATTTCAGA AGA GAAGAT G _ GAM162 KIAA1841 3' AGAGAACAGACTTTAATA 3151 **TCTA** TATTAAAGTCT TTTCT ATAATTTCAGA AGAGA CA_{-} GAM162 Rab11-FIP2 3' AGATGTAGAACTTTAATA 1580 CT T

TATTAAAGT TCTAT TCT

111111111 11111 111

```
ATAATTTCA AGATG AGA
                           Т
GAM162 RABEX5 3' TAGTCGATGGAAGACTTTAA 1504
                                               Τ__
                     TTAAAGTCTTCTATT CTA
                     AATTTCAGAAGGTAG GAT
                           CT
GAM162 SGKL 3' TAGAGGTAAGACTTTAATA 1438
                                           TC
                     TATTAAAGTCT TATTTCTA
                     ATAATTTCAGA ATGGAGAT
GAM162 SYTL3 3' TAGAAAATGGCCAGATTTTAAT 3183
                                             T_ _
        Α
                     TATTAAAGTCT CTATTT CTA
                     ATAATTTTAGA GGTAAA GAT
                         CC A
GAM162 TTY7 3' GAAAAAGACTTTGATA
                                2220
                                          CTA
                     TATTAAAGTCTT TTTC
                     ATAGTTTCAGAA AAAG
GAM162 LOC1136123' TAGAAATAGTTGACTTAATA 2968
                                          A TT
                     TATTAA GTC CTATTTCTA
                     ATAATT CAG GATAAAGAT
                       _ TT
GAM162 LOC121457 3' TAGAAATAGTTCTTTAA 2993
                                          TCTT
                     TTAAAG CTATTTCTA
                     AATTTC GATAAAGAT
                       TT__
                                             TT T
GAM162 LOC133491 3' TAGAATTGGGACTTTAGTA 3015
                     TATTAAAGTC CTA TTCTA
                     ATGATTTCAG GGT AAGAT
                         __ T
GAM162 LOC143282 3' AGAAATAGGCGTACTTTAA 3054
                                            CT_
                     TTAAAGT TCTATTTCT
                     AATTTCA GGATAAAGA
                        TGC
GAM162 LOC143524 3' TAGAGAAGGGAAAGACTTTA 3059
                                              _ A_
                     TAAAGTCTT CT TTTCTA
                     ATTTCAGAA GG AGAGAT
                        A GA
GAM162 LOC144559 5' TAGAGAAGGGAAAGACTTTA 3066
                                              _ A_
```

TAAAGTCTT CT TTTCTA

```
ATTTCAGAA GG AGAGAT
                         A GA
GAM162 LOC153222 3' TAGAAATGGTTGTACTTTAATG 3180
                                              CTT
                     TATTAAAGT CTATTTCTA
                     GTAATTTCA GGTAAAGAT
                         TGTT
GAM162 LOC219623 5' AGAAAAGAAGACTTCAAT 3525
                                               Α
                                          Α
                     ATT AAGTCTTCT TTTCT
                     TAA TTCAGAAGA AAAGA
                      С
GAM162 LOC219918 5' TAGAGAAGGGAAAGACTTTA 3530
                                              _ A_
                     TAAAGTCTT CT TTTCTA
                     ATTTCAGAA GG AGAGAT
                         A GA
GAM162 LOC220071 5' TAGAGAAGGGAAAGACTTTA 3602
                                              _ A_
                     TAAAGTCTT CT TTTCTA
                     ATTTCAGAA GG AGAGAT
                         A GA
GAM162 LOC254431 3' AGGTAAAGACTTTAGTA 3717
                                             C
                     TATTAAAGTCTT TATTT
                     ATGATTTCAGAA ATGGA
GAM162 LOC255515 3' TAGAGAAGGGAAAGACTTTA 3688
                                              _ A_
                     TAAAGTCTT CT TTTCTA
                     ATTTCAGAA GG AGAGAT
                         A GA
GAM162 LOC56959 5' ATAGAAACAGAGGACGTGACTT 3219
                                                 _ A
         TGATA
                        TAAAGTC TTCT TTTCTA T
                     GTTTCAG GAGA AAAGAT A
                        TGCAG C III
GAM162 LOC90906 3' TAGAGAAGGGAAAGACTTTA 2685
                     TAAAGTCTT CT TTTCTA
                     ATTTCAGAA GG AGAGAT
                         A GA
GAM163 ENAM
             5' TATAGACCATTAAGAATA 2216
                                          TC C C
                     TATTCTTA ATG GTC ATA
                     ATAAGAAT TAC CAG TAT
GAM163 EFNA5 3' CTATGGACAAGGAAGAATAGT 876
                                             ATCATGC
```

ATTATTCTT GTCCATAG

```
TGATAAGAA
                               CAGGTATC
                        GGAA
GAM163 LOC159199 5' CTATGGACAAGCCAAGAA 3236
                                         ATCAT
                    TTCTT GC GTCCATAG
                    AAGAA CG CAGGTATC
                      C AA
GAM163 LOC90321 3' ATGGAGGTGGACAGAGAATAA 2630 ATCA G
                    TTATTCTT TGC TCCAT
                    AATAAGAG GTG AGGTA
                       ACAG G
GAM164 KRAS2
           3' AATATTATATTTTTTCTATAAA 1166
                                        GAT
        AΑ
                     TTTTTA AAAAAATATAATATT
                    AAAAAT TTTTTTATATAAA
                      ATC
GAM164 KRAS2 3' AATATTATATTTTTCTATAAA 2331
                                         GAT
        AΑ
                     TTTTTA AAAAAATATAATATT
                    AAAAAT TTTTTTATATAAA
                      ATC
GAM165 APXL
            3' AGGACTTTCTCTTCTACAC 843
                                        TATA
                    GTGTGGGA AAAGTCCT
                    CACATCTT TTTCAGGA
                       CTC
GAM165 ASTN
            3' AGGTGCTTATATCCCACCAAC 2852
                                             AA _
                    GT GTGGGATATA AGT CCT
                    CA CACCCTATAT TCG GGA
                     AC
GAM165 GALK2 3' AGGACTTTCTGTGCCACA 891
                                       G TA
                    TGTGG ATA AAAGTCCT
                    ACACC TGT TTTCAGGA
                      G C_
GAM165 MCL1
            3' AGGACTTTTATACCTGT 1970 TG A
                    G GG TATAAAAGTCCT
                    T CC ATATTTTCAGGA
                    GT _
GAM165 PACE4 5' AGGACTTTTACTACCATGGTA 2434
                                          TG ATA
                    TACCGTG GG TAAAAGTCCT
                    ATGGTAC TC ATTTTCAGGA
                       CA
GAM165 PODXL 3' AGGACTTTTATGGGCTCGGC 1206
                                        G A_
                    GT TGGG TATAAAAGTCCT
```

```
CG GCTC GTATTTTCAGGA
                    _ GG
                                     _ TATAAA
GAM165 TNFSF8 3' GGACTCTCTCACACAGG 811
                   CC GTGTGGGA AGTCC
                   GG CACACTCT TCAGG
                    A C___
GAM165 ATP1B4 3' GACCTCTATATCCTGGTG 1401
                                      GTGT AAA
                   TACC GGGATATA GTC
                   GTGG TCCTATAT CAG
                          CTC
GAM165 CDC14A 3' AGGACCCTTATAGGTACTCACA 1047
                                             AA
                   TGTGGG TATAA GTCCT
                   ACACTC ATATT CAGGA
                      ATGG CC
GAM165 DKFZP434C171 3' GGACTCTTATGTCACTGCA 1641 TG A
                   TG G GATATAA AGTCC
                   AC C CTGTATT TCAGG
                    GTA C
           3' AGGACTTTCATACCGACAAC 1453 _ G A A
GAM165 EMR2
                   GT GT GG TAT AAAGTCCT
                   CA CA CC ATA TTTCAGGA
                    AG C
GAM165 FYCO1 3' AGGACTTTTGTGGGGCCACAAG 2063 CG GA
                    TAC TGTGG TATAAAAGTCCT
        TΑ
                   ATG ACACC GTGTTTTCAGGA
                    A GGG
GAM165 GGA2
           3' AGGACTTTCCCGTCCACACAC 2448
                                        ATA
                   GTGTG GGAT AAAGTCCT
                   CACAC CCTG TTTCAGGA
                     A CCC
GAM165 GGA2
           3' AGGACTTTCCCGTCCACACAC 1604
                                        ATA
                   GTGTG GGAT AAAGTCCT
                   CACAC CCTG TTTCAGGA
                     A CCC
GAM165 ICT1 3' AGGACTTTCACACCATAAGG 834 G GATATA
                   CC TGTGG
                            AAAGTCCT
                   GG ATACC
                            TTTCAGGA
```

A ACAC_

TGTGGGATA AGTCCT

TAAA

GAM165 ZFP100 3' AGGACTCCCTATCCCACA 2877

```
CCC_
GAM165 LOC64744 3' GACTTTATGAAGATCCCACAC 2607
                                          ATA
                    GTGTGGGAT AAAGTC
                    CACACCCTA TTTCAG
                       GAAGTA
GAM166 MEF-2 3' TGCTATTAAATAGTAAAC 2688
                                       T ATAAC
                    GTTTACTATTTA TG GCA
                    CAAATGATAAAT AT CGT
                        Т
GAM166 LOC146184 5' TATCAATAAATAGCAAAC 3281
                                        Α
                    GTTT CTATTTATTGATA
                    CAAA GATAAATAACTAT
GAM167 CDH5 3' CAGTGATGACTATTCTCAAATG 858 G A ATTC
                    CAT TGA AATAGTCAT CTG
                    GTA ACT TTATCAGTA GAC
                     A C
                         GT__
           3' CAGAGAACACTATTTTTACAT 1216
                                          CATA _
GAM167 LNK
                    ATGTGAAAATAGT TTC CTG
                    TACATTTTTATCA AAG GAC
                         C A
GAM167 NPR2 3' CAGAAATGGACATTTTCATATG 786
                                          A A C
                    CATGTGAAAAT GTC TATT CTG
                    GTATACTTTTA CAG GTAA GAC
                                         G A _____
GAM167 CLLD8 3' GCAGGAACACAATTAGGATATT 2219
                                                   III
        TTCATA
                       AAATA TC TA TTCCTG C
                    TTTAT AG AT AAGGAC G
                      _ G TAACAC III
GAM167 FLJ22301 3' CAGGTGAGGACCATTTTCAC 2094
                                         A ATATT
                    GTGAAAAT GTC CCTG
                    CACTTTTA CAG GGAC
                       C GAGT_
GAM167 FLJ22833 3' AGGGAACACCAGTTTTCACATG 2016
                                           AGTCATA
                    CATGTGAAAAT
                                TTCCT
                         GTACACTTTTG
                                AGGGA
                        ACCACA_
GAM167 KIAA0125 3' GAAATGACATTCACATG
                                1548
                                        AATA A
                    CATGTGAA GTCAT TTC
```

ACACCCTAT TCAGGA

```
GTACACTT CAGTA AAG
GAM167 KIAA0125 3' GAAATGACATTCACATG 1549
                                         AATA A
                    CATGTGAA GTCAT TTC
                    GTACACTT CAGTA AAG
                       Α____
GAM167 KIAA0125 3' GAAATGACATTCACATG 1550
                                         AATA A
                    CATGTGAA GTCAT TTC
                    GTACACTT CAGTA AAG
                       Α
GAM167 KIAA0125 3' GAAATGACATTCACATG 1551
                                         AATA A
                    CATGTGAA GTCAT TTC
                    GTACACTT CAGTA AAG
GAM167 KIAA0125 3' GAAATGACATTCACATG 1552
                                         AATA A
                    CATGTGAA GTCAT TTC
                    GTACACTT CAGTA AAG
                       Α____
GAM167 KIAA1199 3' CAGAAATCTGCTGCATTTCACA 2951
                                        A_{-} TT C
        TG
                     CATGTGAAA TAG CA ATT CTG
                    GTACACTTT GTC GT TAA GAC
                        AC C A
GAM167 LANCL2 3' ATATGACTTCTTCACAT 1860
                                        AAT
                    ATGTGAA AGTCATAT
                    TACACTT TCAGTATA
                       CT_
GAM167 SEZ6 3' CAGGAGTACCTTTCTCCACATG 2997
                                        AAAAT TCA
                    CATGTG AG TATTCCTG
                    GTACAC TC ATGAGGAC
                      CTCTT C
GAM167 SNX10 3' AGGAAGATATTTTCAGAT 1442 G
                                          GTCATA
                    AT TGAAAATA TTCCT
                    TA ACTTTTAT
                               AAGGA
                     G
                         AG
GAM167 TNFRSF21 3' AGTGTGACTTTTCCCACA 1502
                                        AA T
                    TGTG AA AGTCATATT
                    ACAC TT TCAGTGTGA
                      CC T
GAM167 TTTY11 5' CAGGAATAGTCAGCATTTCACA 2221
                                           ATAGTCA
        Т
                     ATGTGAAA TATTCCTG
```

```
TACACTTT ATAAGGAC
                        ACGACTG
GAM167 LOC143879 3' GAATACTTAGTATTTTCACATG 3063
                                              GTCA
                    CATGTGAAAATA TATTC
                    GTACACTTTTAT ATAAG
                         GATTC
GAM167 LOC145439 5' CAGGAATACAGAGATTTCGCAT 3078
                                              ATAGTCA
        G
                     CATGTGAAA
                                TATTCCTG
                    GTACGCTTT
                                ATAAGGAC
                        AGAGAC
GAM167 LOC147353 3' CAGGAATAGAACTTGCACATG 3293
                                            AAAAT CA
                    CATGTG AGT TATTCCTG
                    GTACAC TCA ATAAGGAC
                       GT AG
GAM167 LOC221584 5' GAATATGGGCTACTTCATATG 3620
                                            AA
                    CATGTGAA TAGTC ATATTC
                    GTATACTT ATCGG TATAAG
                       C_ G
GAM167 LOC257054 3' CAGGAATGTGTCATTTCCCACA 3682
                                            A_ AGT
                    TGTG AAAT CATATTCCTG
                    ACAC TTTA GTGTAAGGAC
                      CC CT
GAM167 LOC91145 5' CAGGAATGTACACTTTACAT 2713
                                           AATA C
                    ATGTGAA GT ATATTCCTG
                    TACATTT CA TGTAAGGAC
                       CA
GAM167 LOC93297 3' GAATATGTTTGTGTATGTTCAC 2929
                                            A T
        ATG
                      CATGTGAA ATAG CATATTC
                    GTACACTT TGTT GTATAAG
                        GTATG T
GAM168 BACH2 3' AAGCTGTTCGTTGTATCA 1961
                    TGA TACAACGAATA CTT
                     ACT ATGTTGCTTGT GAA
GAM168 GAN
            3' TGAAGTATAGGGATGTATTTA 1974
                                          ACGA
                    TGAATACA ATACTTCA
                    ATTTATGT
                             TATGAAGT
                       AGGGA
GAM168 MHC2TA 3' TGAAGCATTTACTTTGTGTTCA 720
                                            C__ A
                    TGAATACAA GAAT CTTCA
```

```
ACTTGTGTT TTTA GAAGT
                        TCA C
GAM168 MTM1
            3' TGAAGTATTGTGTTTA
                                723
                                        ACGA
                     TGAATACA ATACTTCA
                     ATTTGTGT TATGAAGT
GAM168 AWP1
            3' TGAAGTAATTGTGCTGTATTTA 1872
                                           __ A
                     TGAATACA ACGA TACTTCA
                     ATTTATGT TGTT ATGAAGT
                        CG A
GAM168 BLCAP
            3' TGAAGTATGGTGTTCA 1324
                                          ACGA
                     TGAATACA ATACTTCA
                     ACTTGTGT TATGAAGT
                        GG
GAM168 C5orf3 3' TGAAGTATTCAGGTTCTCA 1859
                                       AT AAC
                     TGA AC GAATACTTCA
                     ACT TG CTTATGAAGT
                      CT GA_
GAM168 CRK7
            3' AAGCTGTCCGTTGTATTC 1690
                     GAATACAACG ATA CTT
                     CTTATGTTGC TGT GAA
                         CC
GAM168 FLJ11101 3' TGAAGTTTTGATTGTATTTA 1814
                                             Т
                     TGAATACAA CGAA ACTTCA
                     ATTTATGTT GTTT TGAAGT
                                            C _
GAM168 FLJ12876 3' TGAAGTGTAGATCATTGTATTC 2004
        Α
                     TGAATACAA GA ATACTTCA
                     ACTTATGTT CT TGTGAAGT
                        A AGA
GAM168 KLF12 3' TGAAGTGTAGATTTGTATTTA 1374
                                           CGA_
                     TGAATACAA ATACTTCA
                     ATTTATGTT TGTGAAGT
                        TAGA
GAM168 MGC4734 3' AAGTGTTCTGTATTCA
                                 2513
                                         AC
                     TGAATACA GAATACTT
                     ACTTATGT CTTGTGAA
GAM168 PRO2000 3' GAGTATTCTTTATATTCA 1469
                                         CC
```

TGAATA AA GAATACTT

```
ACTTAT TT CTTATGAG
                       ΑТ
GAM168 RAB33B 3' TGAAGTGTTCACATTCA 2191
                                        ACAAC
                     TGAAT GAATACTTCA
                     ACTTA CTTGTGAAGT
                       CA
GAM168 RGS12 3' TGAAGCCCGCTGTGTTCA 972
                                          A AATA
                     TGAATACA CG CTTCA
                     ACTTGTGT GC GAAGT
                        C CC
GAM168 ZNF387 3' TGAAGTATGTTTGTATTTA 1522
                                          CGA
                     TGAATACAA ATACTTCA
                     ATTTATGTT TATGAAGT
                        TG
GAM168 LOC158381 3' TGAAGTAATTGTGCTGTATTTA 2905
                     TGAATACA ACGA TACTTCA
                     ATTTATGT TGTT ATGAAGT
                        CG A
GAM168 LOC196411 3' AAGTTTCTTTGTGTTCA
                                           СТ
                                  3412
                     TGAATACAA GAA ACTT
                     ACTTGTGTT CTT TGAA
                        T
GAM168 LOC51186 5' GAAGTCATTGTATTCA
                                          C ATA
                                1680
                     TGAATACAA GA CTTC
                     ACTTATGTT CT GAAG
                        Α
GAM169 RDX
                                           G
            3' TAGAGATTAAACCAATTA 971
                     TAATTGGTTTAATC TTTA
                     ATTAACCAAATTAG AGAT
GAM169 TRPC3 3' AATAAATGTTGAAACCAACTGA 1010
                                              AAT
                     TTA TTGGTTT CGTTTATT
                     AGT AACCAAA GTAAATAA
                          GTT
GAM169 LOC131000 3' TAATAAACGATTTAATGAA 3038
                                         G T
                     TT GTT AATCGTTTATTA
                     AA TAA TTAGCAAATAAT
                     G T
                                          AG CTAAT _
GAM170 ACTA2 3' TGTGAATGTCCTGTGGAA 839
```

TTCCACAG CA TTC CA

```
AAGGTGTC GT AAG GT
                       CT _____ T
GAM170 ASPH 3' GAAATAATTGCTCTGTTGAA 2251
                                       С
                                           CTA
                    TTC ACAGAGCA ATTTC
                    AAG TGTCTCGT TAAAG
                     Т
                         TAA
            3' GAAATAATTGCTCTGTTGAA 2253
GAM170 ASPH
                                       С
                                           CTA
                    TTC ACAGAGCA ATTTC
                    AAG TGTCTCGT TAAAG
                     Т
                         TAA
GAM170 BRCA1
            3' TGGAAGTTAGCACTCTAGGGAA 1392
                                          AC CA
                    TTCC AGAG CTAATTTCCA
                    AAGG TCTC GATTGAAGGT
                      GA AC
GAM170 CDC42 3' GAAGACAGACATCTGTGGAA 856
                                          GCA AA
                    TTCCACAGA CT TTTC
                    AAGGTGTCT GA GAAG
                        ACA CA
GAM170 CLASP1 3' TTGGAAATAAAGAAGTGCTCTG 2718
                    CAGAGCACT ATTTCCAA
                    GTCTCGTGA TAAAGGTT
                        AGAAA
GAM170 CPNE3 3' GAAATTAGTGTGGGGAA 1069
                                       ACAGA
                    TTCC GCACTAATTTC
                    AAGG TGTGATTAAAG
                      GG
GAM170 DACH
            3' TTGGAAATTTTTCTATGG 2388
                                      C CACT
                    CCA AGAG AATTTCCAA
                    GGT TCTT TTAAAGGTT
                     ΑТ
GAM170 ECM2
            5' GAAATTGGCTGGTGGAA
                                       AG AC
                                 823
                    TTCCAC AGC TAATTTC
                    AAGGTG TCG GTTAAAG
                      G_ _
GAM170 EDNRA 3' TAGACTGTCTCTGTGGAA 2681
                    TTCCACAGAG CA CTA
                    AAGGTGTCTC GT GAT
                        T CA
GAM170 ENC1
            3' TTGGAAATCAGTTGTG
                               1045
                                      GAGC A
                    CACA ACT ATTTCCAA
```

```
GTGT TGA TAAAGGTT
                        _ C
GAM170 FANCF 3' TTGGTGGCTGCCCTGTGGAA 1999
                                        A ATTT
                    TTCCACAG GCA CTA CCAA
                    AAGGTGTC CGT GGT GGTT
                       СС
GAM170 FCAR
            3' GAAAACTTAGTCTGTGGAG 2405
                                         GCA __
                    TTCCACAGA CTAA TTTC
                    GAGGTGTCT GATT AAAG
                       CA
GAM170 FCAR
            3' GAAAACTTAGTCTGTGGAG 2407
                                         GCA __
                    TTCCACAGA CTAA TTTC
                    GAGGTGTCT GATT AAAG
                        CA
GAM170 GAS7 3' TTGGAAATATACAGCTCTGTG 1259
                                         ACTA
                    CACAGAGC ATTTCCAA
                    TAAAGGTT
                    GTGTCTCG
                       ACATA
GAM170 KCNJ5 5' GAAATTAATCTCTGGGGAA 784
                                      A CAC
                    TTCC CAGAG TAATTTC
                    AAGG GTCTC ATTAAAG
                     G TA
GAM170 MEF2A 3' GAGAAAATGCTTTGTAGAA 1228
                                          CTAA
                                       С
                    TTC ACAGAGCA TTTC
                    AAG TGTTTCGT AGAG
                         AAA
GAM170 MIR16 3' GGAAACTAAACTCTGTGGAA 1704
                                         CAC A
                    TTCCACAGAG TA TTTCC
                    AAGGTGTCTC AT AAAGG
                       AA C
GAM170 P4HB
           3' TTGAAAATTCCGTCTGTGGGA 787
                                         G ACT C
                    TTCCACAGA C AATTT CAA
                    AGGGTGTCT G TTAAA GTT
                       _CC_ A
GAM170 RAF1
           3' TTGGAAATCAGCTTCTGGAGGA 3168
                                        A_ CA A
        Α
                    TTCC CAGAG CT ATTTCCAA
                    AAGG GTCTT GA TAAAGGTT
```

AG C_C

TTC ACAGAG AATTTCCAA

С

CACT

GAM170 RPS6KA5 3' TTGGAAATTTTTCTGTTGAA 1153

```
AAG TGTCTT TTAAAGGTT
                     T T____
GAM170 TBL1X 3' GAAATGGCCTGTGGAA
                                1233
                                       A ACTA
                    TTCCACAG GC ATTTC
                    AAGGTGTC CG TAAAG
                       _ G__
GAM170 ARHGAP10 5' GGAGCCTGCTTGTGGAA
                                   1926
                                       G CTAAT
                    TTCCACA AGCA TTCC
                    AAGGTGT TCGT GAGG
                       CC
GAM170 ATP9A 3' TTGGAAATCAGTCTGT 2619
                                      GCA A
                    ACAGA CT ATTTCCAA
                    TGTCT GA TAAAGGTT
                       С
GAM170 Di-Ras2 3' TTGGAAATATGTTCCTGGAA 1725
                                        CA CTA
                    TTCCA GAGCA ATTTCCAA
                    AAGGT CTTGT TAAAGGTT
                      C_ A__
GAM170 FHOD2 3' GAGAACGATGCTCTGTGAGA 2981
                                             CTAA
                    TC CACAGAGCA TTTC
                    AG GTGTCTCGT AGAG
                         AGCA
GAM170 FLJ10704 3' TTGGAAATTAGTGTTATCTGGA 1795
                                          CAG
                     TTCCA AGCACTAATTTCCAA
        Α
                    AAGGT TTGTGATTAAAGGTT
                      CTA
GAM170 FLJ12085 3' TTGGAAATTATGCACTTTG 2006 C A C
                    CA AG GCA TAATTTCCAA
                    GT TC CGT ATTAAAGGTT
                     T A _
GAM170 FLJ20209 3' AGATTGGTTGCTCTGGAA 3351
                                        CA
                    TTCCA GAGCA CTAATTT
                    AAGGT CTCGT GGTTAGA
                         Τ
GAM170 FLJ22174 5' TTGGAAATTGAAGCTGTAGAG 1969
                                         C AGCAC
                    TTC ACAG TAATTTCCAA
                    GAG TGTC GTTAAAGGTT
                     A GAA__
GAM170 HSPC129 3' TTGGAAATTAAAGGTGGA 1685
                                         AGAGCAC
                    TCCAC TAATTTCCAA
```

```
AGGTG
                            ATTAAAGGTT
                       GAA
GAM170 KIAA0632 3' GGCCCCCAGTGCTCTGTGGGA 1634
                                               AATTT
                     TTCCACAGAGCACT CC
                     AGGGTGTCTCGTGA GG
                          CCCCC
GAM170 KIAA1184 3' TTGGAAATCAGAAGTCTGTGAG 1994 _ GCA A
                     TC CACAGA CT ATTTCCAA
                     AG GTGTCT GA TAAAGGTT
                     Α
                       GAA C
GAM170 KIAA1671 3' GAAATCAGTGTTGTGGAG 2725
                                          GA A
                     TTCCACA GCACT ATTTC
                     GAGGTGT TGTGA TAAAG
GAM170 KIAA1728 3' TGGTAGTGCTCCTGGAA
                                  2818
                                         CA
                                              ATTT
                     TTCCA GAGCACTA CCA
                     AAGGT CTCGTGAT GGT
                       \mathsf{C}_{-}
GAM170 KIAA1737 3' TTGGAAAAACCCTCTGTGGAG 2789
                                             CACTAA
                     TTCCACAGAG
                                TTTCCAA
                     GAGGTGTCTC
                                 AAAGGTT
                         CCAA
GAM170 KIAA1750 3' ATTGGAAATTGTTGCTGTGTTC 2811
                                                    Ш
        TGTG
                       CAGAGCAC TAATTTCCAA T
                     GTCTTGTG GTTAAAGGTT A
                        TCGTT
                                Ш
GAM170 KIAA1900 3' TGGAAACATGTTGTGGAA 2972
                                          GA CTAA
                     TTCCACA GCA TTTCCA
                     AAGGTGT TGT AAAGGT
                       __ AC__
GAM170 KIAA1946 3' AAGTTAGTGCTCTGCTGAA 3246
                                         CA
                     TTC CAGAGCACTAATTT
                     AAG GTCTCGTGATTGAA
GAM170 LALP1 3' AAATGAATGGTCTGTGGAA 1915
                                          G CTA
                     TTCCACAGA CA ATTT
                     AAGGTGTCT GT TAAA
                        G AAG
GAM170 LRRFIP2 3' TTGGAAATCTGCCTGCAGA 1743 CA A CTA
                     TC CAG GCA ATTTCCAA
```

```
AG GTC CGT TAAAGGTT
                     AC _ C__
GAM170 MGC1842 3' TGGCAGCAGTGCTCTGGGAA 2724
                                             AATTT
                    TTCC CAGAGCACT CCA
                    AAGG GTCTCGTGA GGT
                          CGAC
GAM170 MGC9753 5' TGGCCTGGTGCCTGTGGAA 2333
                                           A ATTT
                    TTCCACAG GCACTA CCA
                    AAGGTGTC CGTGGT GGT
                       CC
GAM170 PEG10 3' GAATTGGTCTGTGGAA
                               1606
                                        GCA
                    TTCCACAGA CTAATTT
                    AAGGTGTCT GGTTAAG
GAM170 PGRMC2 3' TTGGAAATTAGGAGAAGGAA 1287
                                          ACAGAGCA
                    TTCC
                         CTAATTTCCAA
                        GATTAAAGGTT
                    AAGG
                      AAGAG___
GAM170 PPP4R1L 5' GGAAAGCCCTGTGGAA
                                 3139
                                         A ACTAA
                    TTCCACAG GC TTTCC
                    AAGGTGTC CG AAAGG
GAM170 PRO0386 5' GAACTAATGTTCTGTGGAA 1843
                                            CA
                    TTCCACAGAGCA TA TTT
                    AAGGTGTCTTGT AT AAG
                         A C
GAM170 PRO0456 3' TGGAATTCATACTCTGTGGAA 1476
                                            CACTAAT
                    TTCCACAGAG TTCCA
                    AAGGTGTCTC
                                AAGGT
                        ATACTT
GAM170 SLC26A8 5' AGTCAGTATCTGTGGAA
                                         GC A
                                2455
                    TTCCACAGA ACT ATT
                    AAGGTGTCT TGA TGA
                        A_ C
GAM170 SNTG1 5' TTGGAAATAGCTTTGTG 1867
                                        ACTA
                    CACAGAGC ATTTCCAA
                    GTGTTTCG TAAAGGTT
GAM170 ZNF396 3' TTGGAAATAAGTCAATGGAA 3034
                                         CA GCA A
                    TTCCA GA CT ATTTCCAA
```

```
AAGGT CT GA TAAAGGTT
                      AA ___ A
GAM170 LOC145098 5' TTGGAAATATCTTCTGTG 3074
                                          CACTA
                    CACAGAG ATTTCCAA
                     GTGTCTT TAAAGGTT
                       CTA
GAM170 LOC146136 5' GAAAAGGCCTCTGTGGAG 2964
                                            CA AA
                    TTCCACAGAG CT TTTC
                     GAGGTGTCTC GA AAAG
                        CG
GAM170 LOC148195 3' GGAAGGCATCCTGTGGAA 3298
                                            A A AATT
                    TTCCACAG GC CT TCC
                    AAGGTGTC CG GA AGG
                        CTA
GAM170 LOC149086 5' TGGAGATGATCCGTGGAA 3306
                                           A GCACTA
                    TTCCAC GA ATTTCCA
                     AAGGTG CT TAGAGGT
                       C AG
GAM170 LOC149420 3' TTGGAAATTAGAGGTGGAA 3133
                                           AGAGCA
                    TTCCAC CTAATTTCCAA
                     AAGGTG GATTAAAGGTT
                       GA
GAM170 LOC149912 5' TGGAAAGTGCTCTGTGG 3317
                                            AAT
                    CCACAGAGCACT TTCCA
                     GGTGTCTCGTGA AAGGT
GAM170 LOC151816 5' GGAGTGTGCTCTGGGAA
                                             TAAT
                                   3350
                    TTCC CAGAGCAC TTCC
                     AAGG GTCTCGTG GAGG
                          T___
GAM170 LOC152991 5' GAAATGGGTCATACTCTGTGGA 3365
                     TCCACAGAG ACT ATTTC
                     AGGTGTCTC TGG TAAAG
                        ATAC G
GAM170 LOC1575563' TGGAGGGGTGCTCTGTGGAA 3382
                                               AA
                    TTCCACAGAGCACT TTTCCA
                     AAGGTGTCTCGTGG GGAGGT
                                               TA_{\underline{}}
GAM170 LOC157697 5' AAATCTTGTGCTCTGCGAA 3204
                                          CA
                    TTC CAGAGCAC ATTT
```

```
AAG GTCTCGTG TAAA
                         TTC
GAM170 LOC158431 3' TGGAAATTGTTTCTGTAGAA 3390 C C T
                    TTC ACAGAG AC AATTTCCA
                    AAG TGTCTT TG TTAAAGGT
GAM170 LOC200488 5' GAAATGAGTCTGTGGGA 3478
                                           GCA A
                    TTCCACAGA CT ATTTC
                    AGGGTGTCT GA TAAAG
                        __ G
GAM170 LOC220565 3' GAAAAGGCCTCTGTGGAG 3494
                                            CA AA
                    TTCCACAGAG CT TTTC
                    GAGGTGTCTC GA AAAG
                        CG
GAM170 LOC221751 5' TTGGAAATTGAAGCTGTAGAG 3552
                                          C AGCAC
                    TTC ACAG TAATTTCCAA
                    GAG TGTC GTTAAAGGTT
                     A GAA
GAM170 LOC253978 5' TTGGAATCTGTGCTTTGCAGAA 3743
                                           CA
                                                TAAT
                    TTC CAGAGCAC TTCCAA
                    AAG GTTTCGTG AAGGTT
                     AC
                          TCT
GAM170 LOC257319 3' GAAATTAATCCTTTGTGG 3683
                                          CAC
                    CCACAGAG TAATTTC
                    GGTGTTTC ATTAAAG
                       CTA
GAM170 LOC92162 5' GGAGGCGCCTGTGGAA
                                        A A AATT
                                  2816
                    TTCCACAG GC CT TCC
                    AAGGTGTC CG GG AGG
                       _ C ___
GAM170 LOC92391 3' GGAACAGCTCTGTGGAA
                                  2842
                                           ACTAAT
                    TTCCACAGAGC
                                 TTCC
                    AAGGTGTCTCG AAGG
                        AC_{\_}
GAM171 BACH2 3' CCGTGTTGGCCCCAGCCACG 1963
                                         CA ACAA AA_
                    CG GC TG CCAACACGG
                    GC CG AC GGTTGTGCC
                     AC ___ CCC
                                      _ CAAT
GAM171 NCL
           3' CGTGTTGGTTTTGACTG
                                2552
                    CAG CA GAACCAACACG
```

```
GTC GT TTTGGTTGTGC
GAM171 NEO1 3' CGTGTCTTTGTGCTGTG 932
                                      T ACCAA
                   CGCAGCACAA GA CACG
                   GTGTCGTGTT CT GTGC
                       Т
GAM171 SLC21A3 3' CTGTTGGTGTGCTGC
                                      AATGA C
                               1183
                    GCAGCAC ACCAACA G
                    CGTCGTG TGGTTGT C
GAM171 UGCG 5' CCGTGTTGGCGGCCGCAGCGG 1012
                                         A ACAA AA
                    CCGC GC TG CCAACACGG
                    GGCG CG GC GGTTGTGCC
                     A CCG
                                         AT CC A
GAM171 MGC3101 3' CCGCGTTTTCCTGTGCTGC 2047
                   GCAGCACA GAA AAC CGG
                   CGTCGTGT CTT TTG GCC
                      C_ _ C
GAM171 MGC3413 3' CCATGTTAGTGCTACATTGTGC 2269
                                           A C C
                    GCACAATG AC AACA GG
                    CGTGTTAC TG TTGT CC
                      ATCG A A
GAM171 LOC151568 5' CCGTGTTGGCCTTGGCTAGG 2444 GC A TGAA
                   CC AGC CAA CCAACACGG
                    GG TCG GTT GGTTGTGCC
                    A_ _ CC__
                                        T ACCA
GAM171 LOC152765 5' GTGTGTCTTGTGCTGC
                                3175
                   GCAGCACAA GA ACAC
                    CGTCGTGTT CT TGTG
                       _ G___
GAM171 LOC158314 5' CCACCCTTCACTGTGCTGCGG 3387
                                         A CCAACAC
                    CCGCAGCACA TGAA
                    GGCGTCGTGT ACTT CC
                       C CCCA
GAM171 LOC57086 3' CTGTTGGTGTGCTGC 1914
                                      AATGA
                                              С
                    GCAGCAC ACCAACA G
                    CGTCGTG TGGTTGT C
                            Α
GAM172 ABCE1 3' TTGACATTTGATAAATAAACAT 2533 A A
                                             CATC
        CA
                    C ATGT TATTTATC GTCAA
```

```
C A
                            TTTA
GAM172 DMC1
             3' TGATTTATGATAACTATACATT 1356
                                             T CATC
         G
                      CAATGTATA TTATC GTCA
                     GTTACATAT AATAG TAGT
                         C TATT
GAM172 PHEMX 3' GTGGTCAAATATACATCA 2467 A
                                              ΑT
                     C ATGTATATTT CCAT
                     A TACATATAAA GGTG
                      С
                           CT
GAM172 PHEMX
              3' GTGGTCAAATATACATCA 2468
                                              AT
                     CATGTATATTT CCAT
                     A TACATATAAA GGTG
                      С
                           CT
GAM172 PHEMX 3' GTGGTCAAATATACATCA 2469
                                              AΤ
                     C ATGTATATTT CCAT
                     A TACATATAAA GGTG
                      C
                           CT
GAM172 PHEMX 3' GTGGTCAAATATACATCA 1237
                                              AT
                                        Α
                     CATGTATATTT CCAT
                     A TACATATAAA GGTG
                           CT
GAM172 H-L(3)MBT 3' ACGATGGGGATACATT
                                           ATTTA
                                   1632
                     AATGTAT
                              TCCATCGT
                     TTACATA
                             GGGTAGCA
                        G
GAM172 KIAA0979 3' GGTGGGATCAACATACATTG 1602
                                             A T _
                     CAATGTAT TT ATCC ATC
                     GTTACATA AA TAGG TGG
                         CCG
GAM172 LOC220672 3' TTGACATTTGATAAATAAACAT 2566 A A
                                                  CATC
         CA
                       C ATGT TATTTATC GTCAA
                     A TACA ATAAATAG CAGTT
                      C A
                             TTTA
GAM172 LOC257336 5' TTGAAAAAAAAAATAAATGTACATT 3694
                                                CCATCG
                     AATGTATATTTAT
                                    TCAA
                     Ш
                     TTACATGTAAATA
                                    AGTT
                           AAAAA_{-}
                                               C__ _ TAACAA
GAM173 MGC16169 3' AGCACCAACAGCACAGTTCTTC 2312
         Α
                      TGAAGAGC GC GTT TGCT
```

||||

A TACA ATAAATAG CAGTT

```
ACTTCTTG CG CAA ACGA
                        ACA A CC
GAM173 LOC151414 3' AGCATTAAAAACCAGCAGCTCT 3156
                                            C ___ AAC
        TCA
                      TGAAGAGC GC GTTT AATGCT
                     ACTTCTCG CG CAAA TTACGA
                        A AC AA
GAM173 LOC153817 5' AGCATTGTTAAAGTCTCTCTC 2591
                                             CC G
                     TGAAGAG GC TTTAACAATGCT
                     ACTTCTC TG AAATTGTTACGA
                       TC
GAM173 LOC51145 3' AGCTGCAAAAACGAGCTCTTCA 1665
                                              CG AACAAT
                     TGAAGAGC CGTTT GCT
                     ACTTCTCG GCAAA
                                    CGA
                        A AACGT
GAM174 ENAM 5' CAAAGGCAAGCTAACAAAGTTC 2215
                                           ACTAAT
                                                    C
                      TTGAATTT CTTGCC TTG
         AA
                          AACTTGAA GAACGG AAC
                        ACAATC
                               Α
GAM174 DOCK3
             3' CAAGGACAAGGAGAATGAATTC 2750
                                             CTAA C
                      TTGAATTTA TCTTG CCTTG
         AΑ
                     AACTTAAGT GGAAC GGAAC
                        AAGA A
GAM174 GAPCENA 3' AAGGGATCAGAAATTCAA 1412
                                            A AATCTTG
                     TTGAATTT CT
                                 CCCTT
                     AACTTAAA GA
                                 GGGAA
                        _ CTA_
GAM175 HNRPA2B1 3' ATTTTGTGAATGGATTGGA 902
                                          G AGC
                     TCCAATC CAT TATAAAAT
                     AGGTTAG GTA GTGTTTTA
                        _ A__
GAM175 HNRPA2B1 3' ATTTTGTGAATGGATTGGA 2186
                                            G AGC
                     TCCAATC CAT TATAAAAT
                     AGGTTAG GTA GTGTTTTA
                        _ A__
GAM175 bA430M15.1 3' TATTTTATTACAGATTGGA 3073
                                           GCATAGCT
                     TCCAATC
                               ATAAAATA
                     AGGTTAG
                               TATTTTAT
                       \mathsf{ACAT}_{\_}
GAM175 LOC146481 3' CTATTTTATAGCCACCCAGGTA 3092
                                           A GCATA
         GG
                      CC ATC GCTATAAAATAG
```

```
A ACCCAC
GAM176 LOC146229 3' ACAGCAATCAAAACATCAA 3087
                                           GC T
                    TTGATGTTTTG TGCT GT
                    AACTACAAAAC ACGA CA
                         TA _
GAM177 FLJ20413 3' ATAGACGAAAATCAACT 1753
                                        AT
                    AGTT ATTTTCGTCTAT
                    TCAA TAAAAGCAGATA
                      С
GAM178 CRP
            3' AGAAAACTAACACCCAGAAAGG 2920
                                          GAA_ ATAC
        AG
                      CTCT TGG TAGTTTTCT
                    GAGG ACC ATCAAAAGA
                      AAAG CACA
GAM178 DBY
            3' AAAACAGCAGCCCTATTCAGA 1140
                                           ATA A
                    TCTGAATGG CT GTTTT
                    AGACTTATC
                              GA CAAAA
                        CCGAC
GAM178 ERBB2 3' AAAGCGACCCATTCAGAGA 1115
                                            ATACTA
                    TCTCTGAATGG GTTTT
                    AGAGACTTACC
                                 CGAAA
                         CAG
GAM178 ITGA1
            3' AGAACATGTATTCATCCAGA 2660
                                             TA
                    TCTG ATGGATAC GTTTT
                    AGAC TACTTATG CAAGA
                      С
                          TΑ
GAM178 MS4A1
            3' AGAAAATAAGTATCCATCAGAG 710
        Α
                     TCTCTGA TGGATACT GTTTTCT
                    AGAGACT ACCTATGA TAAAAGA
                           Α
GAM178 ARSDR1 3' AAAACAATTCTTCATTCAGA 1656
                                           TACTA
                    TCTGAATGGA GTTTT
                    AGACTTACTT CAAAA
                        CTTAA
GAM178 ATP1B4 3' AAAACTAGTATGTGGAAAG 1400
                                        GAA G
                    CT TG ATACTAGTTTT
                    GA GT TATGATCAAAA
                     AAG G
GAM178 FLJ00024 3' AGAAAACCGTCCATTTAGA 2665
                                            ACTA
                    TCTGAATGGAT GTTTTCT
```

GG TGG CGATATTTTATC

```
AGATTTACCTG CAAAAGA
                         C_
GAM178 FLJ10493 3' AAAGCATATCCGTTCA
                                 1782
                                          CTA
                     TGAATGGATA GTTTT
                     ACTTGCCTAT CGAAA
                         Α
GAM178 FLJ11175 3' AGACTAACATCCATTCTGA 1816
                                        T
                                            AC
                     TC GAATGGAT TAGTTT
                     AG CTTACCTA ATCAGA
                     Т
                         CA
GAM178 KIAA0977 3' AGAAAACTAGTGATACCA 1578
                     TGG TACTAGTTTTCT
                     ACC GTGATCAAAAGA
                      ATA
GAM178 TRIP3 3' AGAAAACTTGACATTCAGATGA 3102
                                         _ GATACT
                     TC TCTGAATG AGTTTTCT
                     AG AGACTTAC
                                 TCAAAAGA
                     Т
                         AGT
GAM178 LOC1491173' AAAACTTTATCCATTGAGA 3307
                                             CT
                                         G
                     TCT AATGGATA AGTTTT
                     AGA TTACCTAT TCAAAA
                          Τ
GAM178 LOC196993 5' AGAAAACTTTCCATTC
                                         TACT
                                  3471
                     GAATGGA AGTTTTCT
                     CTTACCT TCAAAAGA
                       Т
GAM178 LOC56965 5' AGAACTCTGTATCCATCAGAGA 1900
                                            A T TT
                     TCTCTGA TGGATAC AG TTCT
                     AGAGACT ACCTATG TC AAGA
                         _ TC
GAM179 NUMA1 3' AGTCACTTCTCCATCACA 3604
                                          A
                     TGTGATGGA AA TGACT
                     ACACTACCT TT ACTGA
                        CC
GAM179 SLC15A1 3' ATTGGTCATCTTCCCTATCACA 1182
                                            A_A
                     TGTGATGG AA ATGACTAAT
                     ACACTATC TT TACTGGTTA
                        CC C
                                            AAAAT _
GAM179 CNOT3 5' AAAATTCAGTTCCTCCATTACA 1505
                     TGTGATGGA GACT AATTTT
```

```
CC___ C
GAM179 FLJ10898 5' AGTCATTTCTCCATCACA
                                  2527
                                           Α
                     TGTGATGGA AAATGACT
                     ACACTACCT TTTACTGA
                         C
GAM179 FLJ14686 3' AAAATTAGTTGTTACCTCCTCA 2286
                                          T AA_ TG
         CA
                      TGTGA GGA AA ACTAATTTT
                     ACACT CCT TT TGATTAAAA
                       CCA GT
GAM179 HDAC9-PENDING 3' AAAATTGTATATTTTTCCATC 1526
                                               Т
                                                    TG T
         TCA
                       TG GATGGAAAAA AC AATTTT
                     AC CTACCTTTTT TG TTAAAA
                           TATA _
                      Т
GAM179 ZAK
            3' GGTCACTTTCCCATTACA 2427
                                          A A
                     TGTGATGG AAA TGACT
                     ACATTACC TTT ACTGG
                        CC
GAM179 LOC119548 5' TGGGCCATTTTTCCACAACA 2984
                                           GA
                     TGT TGGAAAAATG CTA
                     ACA ACCTTTTTAC GGT
                      AC
                            CG
GAM179 LOC153937 5' AAAATGCAGTTTTTCCTTCACA 3185
                                                 GACTA
                                             Т
                     TGTGA GGAAAAAT ATTTT
                     ACACT CCTTTTTG
                                    TAAAA
                           ACG
                       Т
GAM179 LOC221895 3' GGTACTTTTCTCATCACA
                                    3568
                                              ATG
                     TGTGATG GAAAA ACT
                     ACACTAC CTTTT TGG
                        T CA
GAM180 BLNK
            5' GACGTGACCACTGGACAGTTAT 1441
                                             ATTTTTAA
         Т
                      GATAACTGT
                                  TCACGTC
                     TTATTGACA
                                 AGTGCAG
                         GGTCACC
GAM180 FLJ20152 3' GACAGGAAGAAAAATACAGTTA 1870
                                                AA AC
                     TAACTGTATTTTT TC GTC
                     ATTGACATAAAAA AG CAG
                          GA GA
GAM181 BTG2
            3' GAAAAGACAAAGGTTAC
                                  1330
                                        AA
                                             C
                     GTGA CTTTGTC TTTC
```

ACATTACCT TTGA TTAAAA

```
CATT GAAACAG AAAG
                      G_
                         Α
GAM181 CELSR2 3' GGAAAGGACAAAGCCACA 826
                                        AAA
                    TGTG CTTTGTCCTTTCC
                    ACAC GAAACAGGAAAGG
                      С
GAM181 GAB2
            3' AAAGGACAAGGACATGAG 1424
                                         GAAA
                    TTCATGT CTTTGTCCTTT
                    GAGTACA GGAACAGGAAA
GAM181 GAB2
            3' AAAGGACAAGGACATGAG 2375
                                         GAAA
                    TTCATGT CTTTGTCCTTT
                    GAGTACA GGAACAGGAAA
GAM181 GOLGA4 5' AGAGTTTGAAATCTTCACATGA 2553
                                            AC TC
        Α
                     TTCATGTGAA TTTG CTTT
                    AAGTACACTT AAGT GAGA
                        CTA TT
GAM181 MEF2D 3' GAAAAGACAAAGTCCTCG 3721
                                            C
                    TGA ACTTTGTC TTTC
                    GCT TGAAACAG AAAG
                     CC
GAM181 NEBL 5' AAAGGACGCCACATGAG 1294
                                        AAACTT
                    TTCATGTG
                             TGTCCTTT
                    GAGTACAC
                              GCAGGAAA
                       С
GAM181 PCSK1 3' GAAAATATGATGTTTCACAT 743
                                         T TG CC
                    ATGTGAAAC T T TTTC
                    TACACTTTG A A AAAG
                        T GT TA
GAM181 PRKAR2B 3' GGAAAAGAGAGCTCTCTACATG 951
                                           AAACT G C
        AA
                     TTCATGTG TT TC TTTCC
                    AAGTACAT GA AG AAAGG
                       CTCTC G A
GAM181 SCGB3A2 3' AAAGGACAAATAAAGCAATGAA 2361
                                           _ GAAAC
                    TTCAT GT TTTGTCCTTT
                    AAGTA CG AAACAGGAAA
                      A AAAT_
GAM181 SMP1
            3' AGAGGAAACTTTCACATGAA 1490
                                           CTTTG
```

TTCATGTGAAA TCCTTT

```
AAGTACACTTT AGGAGA
                         CAA
GAM181 SYNGR1 3' GGAAAAAAGGTTTCACAT 1147
                                            G
                    ATGTGAAACTTT TCC
                    TACACTTTGGAA AGG
                         AAA
            3' GGAAACTGTTTAATATCACATG 1001
                                            ____ TTTG
GAM181 TGFA
                      TTCATGTGA AAC TCC
        AΑ
                     AAGTACACT TTG AGG
                        ATAAT TCAA
GAM181 ACAA2
             5' GGCAAAGTCTCACCTGAA 3540
                                        T A
                    TTCA GTGA ACTTTGTC
                    AAGT CACT TGAAACGG
                      C C
GAM181 C1orf34 3' AAAGGACAAAGCCTCAGGGAA 2576 ATG AA
                    TTC TGA CTTTGTCCTTT
                    AAG ACT GAAACAGGAAA
                      GG_ CC
GAM181 CAMKK2 3' GGAAAGGACCTGCCCCACATGA 1310
                                            AAACTTT
                     TTCATGTG
                              GTCCTTTCC
                     AAGTACAC
                               CAGGAAAGG
                        CCCGTC
GAM181 FLJ10849 3' GAAAGGATAACATTTCTCATGA 1803
                                           T CT
                     TTCATG GAAA TTGTCCTTTC
        Α
                     AAGTAC CTTT AATAGGAAAG
                       T AC
GAM181 FLJ13262 3' GGAATAAATTTCACATGAA 2112
                                            C _
                    TTCATGTGAAA TTTGT CC
                    AAGTACACTTT AAATA GG
                         _ A
GAM181 FLJ21977 5' GGACAAAGCTCACATGAA 2237
                                           AA
                     TTCATGTGA CTTTGTCC
                     AAGTACACT GAAACAGG
                        \mathsf{C}_{-}
GAM181 FLJ22301 3' GAAAGCTCACTTCCATGAA 2095
                                          T ACTT TC
                    TTCATG GAA TG CTTTC
                     AAGTAC CTT AC GAAAG
                       _ C__ TC
GAM181 HERC1 3' GAAAGGACAGTTTTACATGAA 1071
                                              TT
                    TTCATGTGAAACT GTCCTTTC
```

AAGTACATTTTGA CAGGAAAG

GAM181	KIAA0280 3' AAAGG	AATCACATGAA 3536 TTCATGTGA TCCTTT AAGTACACT AGGAAA A	AACTTTG
GAM181	KIAA0391 3' GAAAA A	GATAATTACTTACATGA 1517 TTCATGTGA TTGTC TTTC AAGTACATT AATAG AAAG CATT A	AACT C
GAM181	PRO1386 3' GAAAA G	AACAAAGTTCTGCATGA 2188 TTCATGT AACTTTGT TTTC	GA CC
GAM181	RBMS1 3' GAAAG	GTGTTCTTACATGAA 1711 TTCATGTGA AAC CCTTTC AAGTACATT TTG GGAAAG C T	_ TTTGT
GAM181	RBMS1 3' GAAAG	GTGTTCTTACATGAA 1712 TTCATGTGA AAC CCTTTC AAGTACATT TTG GGAAAG C T	_ TTTGT
GAM181	RBMS1 3' GAAAG	GTGTTCTTACATGAA 1713 TTCATGTGA AAC CCTTTC AAGTACATT TTG GGAAAG C T	_ TTTGT
GAM181		GTGTTCTTACATGAA 970 TTCATGTGA AAC CCTTTC AAGTACATT TTG GGAAAG C T	_ TTTGT
GAM181	ROBO2 5' AAAAGA	ACAAAGTTCGAATTGA 2635 TCA TGAA CTTTGTC TTT AGT GCTT GAAACAG AAA TAA A	TG_ A C
GAM181	SGP28 3' AAAGAA TGAA	ACAATATAATTTTCACA 1270 TTCATGTGAAA TTGT C AAGTACACTTT AACA GAAA	ттт
GAM181	ST7L 3' AAAGGAG	CAACTGTAGATGAA 1746 TTCAT TG TTGTCCTTT	G AAACT

```
AAGTA AT AACAGGAAA
                       G GTC
GAM181 ST7L 3' AAAGGACAACTGTAGATGAA 2456 G AAACT
                    TTCAT TG TTGTCCTTT
                    AAGTA AT AACAGGAAA
                       G GTC
GAM181 ST7L
            3' AAAGGACAACTGTAGATGAA 2475
                                         G AAACT
                    TTCAT TG TTGTCCTTT
                    AAGTA AT AACAGGAAA
                       G GTC
GAM181 LOC152263 3' GAAAGGACAAAATAAACACA 3356
                                           AAAC
                    TGTG TTTGTCCTTTC
                    ACAC AAACAGGAAAG
                      AAATA
GAM181 LOC157507 5' ACAAAGCTATCACATGAA 3202
                                           AA
                    TTCATGTGA CTTTGT
                    AAGTACACT GAAACA
                        ATC
GAM181 LOC158158 3' GAAAGGACATCTACACCGAA 3211 AT AAACTT
                    TTC GTG TGTCCTTTC
                     AAG CAC ACAGGAAAG
                      C_ ATCT__
GAM181 LOC219730 3' GGAAAGGACAAAATGGAGAGTG 3588
                                            GTGAAAC
                     TCAT
                           TTTGTCCTTTCC
        Α
                     AGTG AAACAGGAAAGG
                      AGAGGTA
                                            A __ CC
GAM181 LOC255158 3' GAAAAAACAAAAGTTATATAT 3693
        GAA
                      TTCATGTG AACTT TGT TTTC
                    AAGTATAT TTGAA ACA AAAG
                        A AA AA
GAM182 PTPRM 3' ATGCAAAACTCAACGATC 963
                                       G _ C
                     GAT CGT GAGT TTGCAT
                     111 111 1111 111111
                     CTA GCA CTCA AACGTA
                      _ A A
GAM182 HCA4
            3' AATGCAAGAAGGAACACATAAG 2450
                                        CG C GAG
                     TACT ATG GT TCTTGCATT
        TΑ
                     ATGA TAC CA AGAACGTAA
                      A_ A AGGA
GAM182 HCA4
            3' AATGCAAGAAGGAACACATAAG 3086
                                          CG C GAG_
                     TACT ATG GT TCTTGCATT
        TA
```

```
ATGA TAC CA AGAACGTAA
                      A_ A AGGA
GAM183 FLJ13154 3' ACCAGAATCTCCACTGTAGT 2070
                                                 Α
                     ACTGCA GAGATTCT GT
                     TGATGT CTCTAAGA CA
                       CAC
                             C
GAM183 HDAC9-PENDING 3' ACTAGAATCTCTTAAGTAT 1527
                                               GC
                     ATACT AGAGATTCTAGT
                     TATGA TCTCTAAGATCA
                       ΑT
GAM183 KIAA0232 3' TTACTAGCATTGCAGTGTC 2958
                                            AGATT
                     GATACTGCAG CTAGTAA
                     CTGTGACGTT GATCATT
                         AC
GAM183 KIAA1010 3' ACTAGAATCTCTAGAATTTGA 2933
                                           TACTGC
                     TCGA AGAGATTCTAGT
                     TCTCTAAGATCA
                     AGTT
                      TAAGA
GAM183 LOC219894 3' TGCTGTCTCTGCAGTACTGA 3596
                                                 TCT
                     TCG TACTGCAGAGAT AGTA
                     AGT ATGACGTCTCTG TCGT
GAM184 PABPC4 3' AATAAAGAAAAAAAATCTCCA 1064
                                                AG
                                           Α
                     TGGAGA TTTTTTTC TTGTT
                     ACCTCT AAAAAAAG AATAA
                           Α
GAM184 SH3GL2 3' GACTGAAAAGAAATTCTCCA 983
                     TGGAGAATTTTTT CAGTT
                     ACCTCTTAAAGAAA GTCAG
                          Α
GAM184 IMP-2 3' CAAACAAAGAAAAAATTCCACA 1309
                                         GΑ
                                               CAG
                     TG GAATTTTTTT TTGTTTG
                     AC CTTAAAAAAG AACAAAC
                      AC
                            Α
GAM184 KIAA0872 3' CAAAAGAAAAAAAATTCTCC 1593
                                              _ AG
                     GGAGAATTTTTT C TTG
                     CCTCTTAAAAAAA G AAC
                          A AA
GAM184 MGC19570 5' CAAACAACCGACTCCTTTCCA 2514
                                             ATTTTTT A
                     TGGAGA TC GTTGTTTG
```

```
ACCTTT AG CAACAAC
                       CCTC___ C
GAM184 PTPN4 3' CAAACAAGGCTCAAAATTCTC 961 TTTCAG
                    GAGAATTTT TTGTTTG
                    111111111
                          CTCTTAAAA
                              AACAAAC
                        CTCGG
GAM184 TIX1 5' CAAACAACTGAAAAAGCTGCA 2604 G AAT
                    TG AG TTTTTTCAGTTGTTTG
                    AC TC GAAAAAGTCAACAAAC
                     G
GAM185 PSG5
            3' AAAAAACTCCATGTTATTGGAC 955
                                          TC
                                                AC
        TAA
                      TTAGTTCA ATATGGA TTTTT
                    AATCAGGT TGTACCT AAAAA
                       TAT
                             CA
GAM185 FAPP2 3' AAAAAGCTGGTGGTGAAC 2267
                                          ATGGAA
                    GTTCATCAT CTTTTT
                    CAAGTGGTG GAAAAA
                        GTC
GAM185 LOC145820 3' AAGTGCCACAAAATGAACTAA 3084
                                          CATA A
                    TTAGTTCAT TGG ACTT
                    AATCAAGTA ACC TGAA
                        AAAC G
GAM185 LOC83690 3' AAAAAGTTGAACAAAGATGAAC 2202
                                             ATATGG
        \mathsf{TAA}
                      TTAGTTCATC AACTTTTT
                    AATCAAGTAG
                                TTGAAAAA
                        AAACAAG
GAM186 IGF1 3' TATACTACAGCAGAATGACT 762
                                         A ACG C
                    AGTTATTC TG GTAG ATA
                    TCAGTAAG AC CATC TAT
                       _ GA_ A
GAM186 FLJ20035 3' ATGTTCTGTCATGAATACT 1733 T
                                            Т
                    AGT ATTCATGACGG AGCAT
                    TCA TAAGTACTGTC TTGTA
GAM186 FXYD3 3' TATGCTACCCTTAATAAC 1966
                                        TCA C
                    GTTAT TGA GGTAGCATA
                    CAATA ATT CCATCGTAT
                       С
GAM186 FXYD3 3' TATGCTACCCTTAATAAC 1263
                                        TCA C
                    GTTAT TGA GGTAGCATA
```

```
CAATA ATT CCATCGTAT
                       __ c
GAM186 GMFB 3' TATTGAGCCATGAATAATTTA 1090
                     TAAGTTATTCATG CGGTA
                     ATTTAATAAGTAC GTTAT
                          CGA
GAM187 ADCY2 3' ATGTTGAATGTATCTAGTG 2710
                                          TT G
                     CACTAG TA ATTCAACAT
                     GTGATC AT TAAGTTGTA
                       T G
GAM187 CCNA1 3' GTTGGATCAACTAATG 1070
                                         TA
                     CA TAGTT GATTCAAC
                     11 11111 11111111
                     GT ATCAA CTAGGTTG
GAM187 COG6 3' ATGTTGACCTGAGCTAGT 2961
                                           ΑT
                     ACTAGTTTAG TCAACAT
                     TGATCGAGTC AGTTGTA
                         C_{-}
GAM187 DACH
             3' GTATATTGAACCCTAGGCTAGT 2387
        G
                     CACTAGTTTAG TTCAA ATAC
                     GTGATCGGATC AAGTT TATG
                         CC
GAM187 FKBP1A 3' GTGTGTTTACCTAAACTA 775
                                          ATTC
                     TAGTTTAG AACATAC
                     ATCAAATC TTGTGTG
                        CAT_
GAM187 HSPD1 3' ATGTTCTAACTCCTAGACTAGT 2559
                                             ATTC
        G
                     CACTAGTTTAG AACAT
                     GTGATCAGATC
                                  TTGTA
                         CTCAATC
GAM187 JJAZ1 3' TATGTTGAATTGATCTAG 1622
                                        TTTA
                     CTAG GATTCAACATA
                     GATC TTAAGTTGTAT
                      TAG
GAM187 MAN1A1 3' GTATGTCAAAGAATAAATTAGT 3543
                                             GA_ CA
                     ACTAGTTTA TT ACATAC
                     TGATTAAAT AA TGTATG
                        AAG AC
                                        _ AGA
GAM187 PKIB
            3' ATGTTGAAAGACTTAGTG 2254
```

CACTA GTTT TTCAACAT

```
GTGAT CAGA AAGTTGTA
                       Т
GAM187 RRM2B 3' GTATGTTGAAATAAACTA 2799
                                          GA
                     TAGTTTA TTCAACATAC
                     ATCAAAT AAGTTGTATG
                       Α
GAM187 SWAP70 3' GTATGTGCTGTTAAACTAG 2917
                                            ATTCA
                     CTAGTTTAG ACATAC
                     GATCAAATT TGTATG
                        GTCG
GAM187 ABHD3 3' GTTTTAATTTAAACTAGT 2436
                                           C_{-}
                     ACTAGTTTAGATT AAC
                     TGATCAAATTTAA TTG
                          TT
GAM187 ATIP1 3' ATGTTCTTTTAAATTAGTG 1924
                                           TTC
                     CACTAGTTTAGA AACAT
                     GTGATTAAATTT TTGTA
                         TC_
GAM187 DKFZP564F013 3' TATGTTGAATTATGTCAGTG 3640
                                           AG TTA
                     CACT T GATTCAACATA
                     GTGA G TTAAGTTGTAT
                      CT TA
GAM187 FN5
           3' TATGTTGAATCAAAGTG 1898
                                      AGT A
                     CACT TT GATTCAACATA
                     GTGA AA CTAAGTTGTAT
GAM187 KIAA0416 3' TATGCTGAAGACTGGT 1637
                                         TAGA A
                     ACTAGTT TTCA CATA
                     TGGTCAG AAGT GTAT
                         ___ C
GAM187 KIAA0455 3' TATGTTGATTCTACCTGTG 2948
                                         T TT T
                     CAC AG TAGA TCAACATA
                     GTG TC ATCT AGTTGTAT
                      _ C_ T
GAM187 KIAA0912 3' GTATGTTTTACTTAAACTAG 2689
                                            ATTC
                     CTAGTTTAG AACATAC
                     GATCAAATT TTGTATG
                        CATT
GAM187 KIAA0981 3' ATGTTGAATTTTAAACTAG 2597
```

CTAGTTTAGA TTCAACAT

GATCAAATTT AAGTTGTA

GAM187 KIAA1911 3' TATGTTGAAAAACTGCTGTG 2976 T TTAGA CAC AGT TTCAACATA GTG TCG AAGTTGTAT _ TCAAA GAM187 KRTHB2 3' GTATGTTGAACCCAAACTGTG 2310 T AGA CAC AGTTT TTCAACATAC GTG TCAAA AAGTTGTATG CCC GAM187 RPS6KC1 3' GTATGTTGAATGTGGTCCCAG 1429 AGT G CT TTA ATTCAACATAC GA GGT TAAGTTGTATG CCCT G GAM187 TOMM70A 3' ATGTTGATTTTTAAATTA 1558 Т TAGTTTAGA TCAACAT ATTAAATTT AGTTGTA TT GAM188 CDC23 3' TGCACAGTAGATGCTATGGA 1141 AAC TCTATAGCATCTACT TGTA AGGTATCGTAGATGA ACGT С GAM188 EGLN3 3' TGGAGGTGGTAGATGCCACAGA 2330 A G ATA TCT GCATCTACTA CT TA AGA CGTAGATGGT GA GT CAC GGGAM188 EGLN3 3' TGGAGGTGGTAGATGCCACAGA 1976 A G ATA TCT GCATCTACTA CT TA AGA CGTAGATGGT GA GT CAC GGGAM188 JAM3 3' GTACACAGATGCTACAGA 2280 A **ACTAAC** TCT TAGCATCT TGTAC AGA ATCGTAGA **ACATG** C_{-} GAM188 RNF7 3' ACAGCTTAGAAGTGCTATA 1485 T A _ TATAGCA CT CTAA CTGT ATATCGT GA GATT GACA _ A C GAM188 WBSCR5 3' GTACAGTTAACTTATAGA 1973 **CATCTAC** TCTATAG TAACTGTAC

```
AGATATT ATTGACATG
                       CA
GAM188 WBSCR5 3' GTACAGTTAACTTATAGA 2250
                                       CATCTAC
                    TCTATAG TAACTGTAC
                         AGATATT ATTGACATG
                       CA
GAM188 WBSCR5 3' GTACAGTTAACTTATAGA 1479
                                         CATCTAC
                    TCTATAG
                             TAACTGTAC
                         AGATATT ATTGACATG
                       CA
GAM188 C8orf13 3' TGCACAGCTGTTTAGGCTATAG 3206
                                          ATCT TAA A
        Α
                    TCTATAGC AC CTGT CA
                    AGATATCG TG GACA GT
                       GATT TC C
GAM188 CDT6 3' TATAGTTAATAATAAATGCTGT 1945
                                         СС
                    TATAGCAT TA TAACTGTA
        Α
                    ATGTCGTA AT ATTGATAT
                       A AATA
GAM188 DKFZp566D234 3' TGCAGCATGCTATAGA
                                   2613 CTACTAA
                    TCTATAGCAT CTGTA
                    11111
                    AGATATCGTA
                               GACGT
                        С
GAM188 FLJ10525 3' GTACAGTTTTAGTATAGA 1786
                                        GCAT CT
                    TCTATA CTA AACTGTAC
                    AGATAT GAT TTGACATG
                         Т
GAM188 FLJ12078 5' TGCTAGAGTAATGCTATA 2121
                                       C AACT
                    TATAGCAT TACT GTA
                    ATATCGTA ATGA CGT
                       _ GAT_
GAM188 KIAA0007 3' TGTACAGTTATATTTGTCTATA 3154
                                         TC C
                    TATAG CA TA TAACTGTACA
                    ATATC GT AT ATTGACATGT
                      T TT _
GAM188 KIAA1728 3' TGTACAATTAGTACTTTATAG 2819
                                         CATC
                                               С
                    CTATAG TACTAA TGTACA
                    GATATT ATGATT ACATGT
                      TC__ A
GAM188 MGC4643 3' TGTACAGTCTAAAGCTACAGA 2272
                                         A ATCTACTA
                    TCT TAGC ACTGTACA
```

```
AGA ATCG
                               TGACATGT
                      C AAATC
GAM188 MPPE1 3' TGTACAGTATGTAAATGCTAT 2029
                                          C TA
                     ATAGCAT TAC ACTGTACA
                     TATCGTA ATG TGACATGT
                        A TA
GAM188 RNPS1
             3' TGTACAGTCAGTACTATA 2376
                                         CATC A
                     TATAG TACT ACTGTACA
                     ATATC ATGA TGACATGT
                           С
GAM188 RNPS1
             3' TGTACAGTCAGTACTATA 1326
                                         CATC A
                     TATAG TACT ACTGTACA
                     ATATC ATGA TGACATGT
                           С
GAM188 TUSP
            3' AGTAGAAGATGCTACAGA 1907
                                            A A
                     TCT TAGCATCT CTA CT
                     AGA ATCGTAGA GAT GA
                      С
                         Α _
GAM188 LOC153027 3' TGTACAGTCAGTTCTATA 2792
                                          CATCT A
                     TATAG ACT ACTGTACA
                     ATATC TGA TGACATGT
                       Τ
GAM188 LOC1531145' GTGAGCAGACTGCTATAGA 3367
                                              ΑА
                     TCTATAGCA TCT CT AC
                     AGATATCGT AGA GA TG
                        CCG
GAM189 SORT1
             3' CATCAAAGCCAAAAGGACCTAC 974
                                           A C
                                                 AAA
         Α
                     TGTA G TCTTTTTG TTGATG
                     ACAT C AGGAAAAC AACTAC
                      _ C
                            CGA
GAM189 ATP9A
             3' CATCAATCTGGAAAGAACTTAC 2618
                                            С
                                               GAA
         Α
                     TGTAAG TCTTTTT ATTGATG
                     ACATTC AGAAAGG TAACTAC
                       Α
                           \mathsf{TC}_{-}
GAM189 DKFZP434K1772 3' TTTCAAAAAGAGGTTACA 2797
                                              G
                     TGTAA CTCTTTTTGAAA
                     ACATT GAGAAAAACTTT
                       G
GAM189 UNC5D
             3' CAATTTCAAAGAGAACCCACA 2392
                                          AAGC
                     TGT TCTTTTTGAAATTG
```

```
CCCA
GAM190 SCD
            3' AGCCAGACAAAATTTGAGAATA 1176
                                         CA TG CCA
                    TAT T A TTTGTCTGGCT
                    ATA A T AAACAGACCGA
                      AG GT TA
GAM190 SOS2
            3' AGCCATATGTAGTCATTGA 2824
                                        T CATT C
                    TCA TGAC TGT TGGCT
                     AGT ACTG GTA ACCGA
                      T AT__ T
GAM190 BANP
            3' CCAGACAAGTGCCCAACGA 2744
                                        A AC
                    TC TTG CATTTGTCTGG
                    AG AAC GTGAACAGACC
                     C CC
GAM190 KIAA0446 5' AGCCAGACAAAAAGAATGATTC 2831 T GACCA
                    A ATCATT TTTGTCTGGCT
                    C TAGTAA AAACAGACCGA
                     Т
                        GAA
GAM190 LOC115110 3' GGCTGAAATGGTCAAT
                                           GTC
                                  2924
                    ATTGACCATTT TGGCT
                     TAACTGGTAAA GTCGG
GAM190 LOC148443 3' AGCCAACACATATGGTCAATGA 3118
                                              T C
                    TCATTGACCAT TGT TGGCT
                     AGTAACTGGTA ACA ACCGA
                         T CA
                                            A A TC
GAM190 LOC1518263' TTATTCAAAGGCCAATGATA 3161
                    TATCATTG CC TTTG TGG
                    ATAGTAAC GG AAAC ATT
                        C _ TT
GAM190 LOC200609 5' CCACCACCAATGGTCAAGATAT 3479
                                                T C_
                                           Α
                    ATATC TTGACCATT GT TGG
                     TATAG AACTGGTAA CA ACC
                           C CC
GAM191 BHLHB3 3' TCAAGTGCATCTATTCCCA 2163
                                          AAATAC GT
                    TGGGAATA
                              TACT TGA
                     GTGA ACT
                     ACCCTTAT
                        CTAC__
                                          C GT_
GAM191 ITK
          3' CATGAGGTAATATTATTATTCC 1223
        CA
                      TGGGAATAA AATA TACT TG
```

ACA AGAGAAACTTTAAC

```
ACCCTTATT TTAT ATGG AC
```

A A AGT

GAM191 MPV17 3' CTTGATAATAGTCTTATTCCCA 2888 AAT C TG

TGGGAATAA ACTA TGT AG

ACCCTTATT TGAT ATA TC

C_ A GT

GAM191 MSR1 3' TCAGCATTTTTATTCCCA 930 TACTAC

TGGGAATAAAA TGTTGA

ACCCTTATTTT ACGACT

Τ

GAM191 RNMT 3' TCAGCACCATTATTCCCA 1061 AATACTAC

TGGGAATAA TGTTGA

ACCCTTATT ACGACT

ACC

GAM191 SCP2 3' CAGAAACAGTATTTCTTCCCA 976 T ACTG

TGGGAA AAAATACT TTG

ACCCTT TTTTATGA GAC

C CAAA

GAM191 DKFZP564K0822 3' CTCAACAATTTTGTATTCCCA 3630 AAATACTAC

TGGGAATA TGTTGAG

ACCCTTAT ACAACTC

GTTTTA

GAM191 KIAA0564 3' CAAAATGTACCTTATTCCCA 2742 AA TACTG

TGGGAATAA TAC TTG

ACCCTTATT ATG AAC

CC TAA__

GAM191 KIAA0769 3' CGGCATTATTTTATTCCCA 1560 CTAC

TGGGAATAAAATA TGTTG

ACCCTTATTTTAT ACGGC

T____

GAM191 KIAA1163 3' CTTGGTTAGTATTTGATTCCCA 3122 A CTG TG

TGGGAAT AAATACTA T AG

ACCCTTA TTTATGAT G TC

G T__GT

GAM191 KIAA1332 3' CAACAAAGGATTTTATTCC 2909 A AC

GGAATAAAAT CT TGTTG

CCTTATTTTA GG ACAAC

_ AA

GAM191 SFRS11 3' AGTAATAATTTATTCCCA 1155 A C

TGGGAATAAA TA TACT

ACCCTTATTT AT ATGA

AGAM191 ZNF387 3' CTCAACAGTAATTCCACTCCCA 1521 ATAAAATAC TGGGA TACTGTTGAG IIIII ACCCT ATGACAACTC CACCTTA GAM191 LOC138639 3' CTCAACACACCAAGCCTTATTC 3020 AATACTAC CCA TGGGAATAA TGTTGAG ACCCTTATT **ACAACTC** CCGAACCAC GAM191 LOC147299 3' CAACATTTTATTTCCA 3107 **TACTAC** TGGGAATAAAA TGTTG ACCTTTATTTT ACAAC GAM191 LOC90019 5' CTCAACAGCTGCTTATTCCCG 2445 AATACTA TGGGAATAA CTGTTGAG GCCCTTATT GACAACTC CGTC GAM192 B3GALT5 5' AGATCAGAGACTGTAAAAAGT 2320 С С GCTT TACAGTCTTT GTTT TGAA ATGTCAGAGA TAGA AA GAM192 BTEB1 3' GAAACGAAAGAAAGCAAAGC 808 **CTACAG** GCTT TCTTTCGTTTC CGAA AGAAAGCAAAG ACGAA CC GAM192 RP2 3' GCTAAAACTGTAGAAGC 1340 GCTTCTACAGT TTT GT CGAAGATGTCA AAA CG GAM192 C12orf22 3' AAACAAAACTGTAGAAGC 2169 CC GCTTCTACAGT TTT GTTT CGAAGATGTCA AAA CAAA GAM192 C20orf26 3' GGAAACGCGCTCTGTAGAA 2879 TCTTT TTCTACAG CGTTTCC AAGATGTC GCAAAGG

TCGC_

GCT CT CAGTCTTT GTTT

ΤA

 C_{-}

GAM192 FLJ14627 5' GAACTTGAAGACTGCAGAGC 2283

```
CGA GA GTCAGAAG CAAG
                      _ C
                           TT
GAM192 GPR72 3' GGAAACACACTCCTGCAGAAGC 2867 A TCTTTC
        TG
                      TAGCTTCT CAG GTTTCC
                     GTCGAAGA GTC
                                  CAAAGG
                        C CTCACA
GAM192 GPT2
            3' GAAAAGGTTAAATCGTAGAAGC 2418
                                            A CTT_ G
        TΑ
                     TAGCTTCTAC GT TC TTTC
                     ATCGAAGATG TA GG AAAG
                        C AATT A
GAM192 KIAA0470 5' GCCAAAGACTTAGAAGCTA 1556
                                               С
                    TAGCTTCTA AGTCTTT GT
                    ATCGAAGAT TCAGAAA CG
                           С
GAM192 KIAA1328 5' GAAATCATACCTGCAGAAGCTA 2602
                                            A TCTTTC
                    TAGCTTCT CAG GTTTC
                    ATCGAAGA GTC TAAAG
                        C CATAC
GAM192 KIAA1981 3' AGATGAAACCATGGAAGC 3430
                                          CA CT
                     GCTTCTA GT TTCGTTT
                     CGAAGGT CA AAGTAGA
                       AC
                                             __ TCT
GAM192 MGC17330 3' GGAAACGAGTTTGTACAGAAGT 2342
                    GCTTCT ACAG TTCGTTTCC
                    TGAAGA TGTT GAGCAAAGG
                       CA T__
GAM192 MRPL35 3' GAAACGAAAAAGTTAAGC 1701
                                        CT AGTC
                    GCTT AC TTTCGTTTC
                     CGAA TG AAAGCAAAG
                      T_ AA__
GAM192 LOC205011 5' GAAAACAAGAGTAGAGGC 3492
                                          AG TCG
                     GCTTCTAC TCTT TTTC
                     1111111 1111 1111
                     CGGAGATG AGAA AAAG
                        __ CA_
GAM193 KIAA1228 3' CGGAACACCCCTCTCA 2712
                                         AAA
                    TGAGA GTGTGTTCTG
                     ACTCT CACACAAGGC
```

 CC_{-}

TGAG AGT GTGTTCTGA TCGC

GAM193 KIAA1655 5' GCGACTCGGGGCACTGCTCCTC 2754

Α

AAA _

Α

```
ACTC TCG CACGGGGCT AGCG
                       C__ T
                                С
GAM193 NDST3 3' TAGAACACACCTTTTCCA 1157
                     TG GAAAAG TGTGTTCTG
                     AC CTTTTC ACACAAGAT
                         C
GAM193 PP1057 3' GCAATTTACACACTTGTCTCA 2189 A
                                                TCT C
                     TGAGA AAGTGTGT GAAT GC
                      ACTCT TTCACACA TTTA CG
                        G
GAM193 RNP24 3' CGACTCAGCATACATTTTCCCA 1333 A G T A
                     TG GAAAA TGTGT CTGA TCG
                     11 11111 11111 1111 111
                     AC CTTTT ACATA GACT AGC
                      C C C
GAM193 LOC150142 5' CAGAACACCACCTCTCA 3142
                                            AAA _
                     TGAGA GTG TGTTCTG
                      ACTCT CAC ACAAGAC
                        C__ C
                                          AA
GAM193 LOC199899 5' ATTCAAAACACACATTC
                                    3473
                                               C
                      GAA GTGTGTT TGAAT
                      111 1111111 11111
                      CTT CACACAA ACTTA
                       Α
                           Α
GAM193 LOC222068 3' ATTTTAATACACTTCCCTCA 3573
                                                  CT
                                            AA
                     TGAG AAGTGTGTT GAAT
                      ACTC TTCACATAA TTTA
                       CC
                             T_
GAM194 HUS1
                                            TC
             3' TTCCTATTATAATTACATCT 3509
                     GGAT TAGTT ATAATAGGAA
                      TCTA ATTAA TATTATCCTT
                       С
GAM194 TRPM8 3' TCCTATTGAAGGAACCACCCC 2052
                                            ATATA A
                      GG GTTTC TAATAGGA
                      CC CAAGG GTTATCCT
                      CCCAC AA
GAM194 LOC148936 3' CCTACCTGATATTACATCCTA 3304
                                              A T TAA
                     TAGGAT TAGT TCA TAGG
                      ATCCTA ATTA AGT ATCC
                        C T CC_
GAM194 LOC148938 3' CCTACCTGATATTACATCCTA 3303
                                              A T TAA
                     TAGGAT TAGT TCA TAGG
```

```
ATCCTA ATTA AGT ATCC
                       C T CC_
GAM194 LOC200803 3' TTCCTATTATATGGTATCC 3452
                                         AGTTTC
                    GGATAT ATAATAGGAA
                    CCTATG TATTATCCTT
                       GTA
GAM194 LOC255332 5' TTCCTATTACTCTGCATATCTT 3696
                                          A TTCA
                     TAGGATAT GT TAATAGGAA
                    ATTCTATA CG ATTATCCTT
                       TCTC
GAM194 LOC90459 3' CTAGATGAAACCATATCTTA 2641
                                               AA
                    TAGGATAT GTTTCAT TAG
                    ATTCTATA CAAAGTA ATC
                       С
                           G
GAM195 DKFZp434E0519 5' TGGAAATCCGTGTGTAA 2241
                                               ACG
                    TTACACACGGA TTTA
                    AATGTGTGCCT AGGT
                         AA_{-}
GAM195 HSU84971 3' GTTATAAACATTCTTATGTGTA 1439
                                          C C
                     ATTACACA GGAA GTTTATAAC
        ΑT
                    TAATGTGT TCTT CAAATATTG
                       AT A
GAM195 LOC157663 3' AGCTTCCCATTGTGTAATA 3203
                                           C C
                    TATTACACA GGAA GTT
                    ATAATGTGT CCTT CGA
                        TAC
GAM196 EXT2 3' GAGAAGAGAGCGTGTTA 737
                                          G
                    TAACACGCTTCT TTCTC
                    ATTGTGCGAAGA AAGAG
                         G
GAM196 MBNL
            3' ATAGATGAGAGCGTGCATGC 1936
                                        TTC
                    GC TGTTCTCATCTAT
                    CG GCGAGAGTAGATA
                     TACGT
GAM196 PLN
           3' AGATGAGAACTGGTGGTTA 946
                                       A TCT
                    TAAC CGCT GTTCTCATCT
                    ATTG GTGG CAAGAGTAGA
                      _ T__
                                          C _
GAM196 SLC12A2 3' AGCAATAAAAGCGTGTTA 796
                    TAACACGCTT TGTT CT
```

```
ATTGTGCGAA ATAA GA
                        A C
GAM196 SLC1A3 3' AGATGAGAAGACTAGCAGC 1092 T
                    GCT CTG TTCTCATCT
                    CGA GAT AAGAGTAGA
                     C CAG
GAM196 BTBD3 3' ATAGATGATGAAAAGCTGTTA 1600 C CTG _
                    TAACA GCTT TTC TCATCTAT
                    ATTGT CGAA AAG AGTAGATA
GAM196 KIAA1237 3' AGATGAGGATGAGCGT
                                 3166
                                        CT
                    ACGCTT GTTCTCATCT
                    TGCGAG TAGGAGTAGA
GAM196 NAALAD2 3' ATAGATGAGAATTTTCCGT 1215
                                        CTTCT
                    ACG GTTCTCATCTAT
                    TGC TAAGAGTAGATA
                     CTTT
                                       _ TTC
GAM196 PEG10 3' ATAGATGAATTAGTAAGC 1605
                    GCTT CTG TCATCTAT
                    CGAA GAT AGTAGATA
                     T TA
GAM197 RAI2 5' AGAATTAGGCTTAAAAAATGCC 1959
                                        CG TATGAT
                    AGGCATTT TAA ATTCT
        Т
                    TCCGTAAA ATT
                                 TAAGA
                       AA CGGAT_
GAM197 UMPK
            3' CATGGAGATGAAATGCCT 1436
                                          AA
                    AGGCATTTCGT TATG
                    TCCGTAAAGTA GTAC
                        GAG
GAM197 ZNF134 3' GAAAATCATGAAATGCCT 1021
                                         GTAAT A
                    AGGCATTTC ATGAT TTC
                    TCCGTAAAG TACTA AAG
                             Α
GAM197 ARL8
          3' AGAATATCACATTATTCAATGC 3594
                                        TC A
```

GCATT GTAAT TGATATTCT

CGTAA TATTA ACTATAAGA

AGG TTTCGTAAT TGATATT

CA

Α

CT C

GAM197 KIAA0546 3' AATGTTAATTATGAAACACCT 2911

```
AC
GAM197 KIAA0644 3' AGAACATCACTGAAAATGCCT 1557
                                            TAATA A
                    AGGCATTT CG TGAT TTCT
                    TCCGTAAA GT ACTA AAGA
                        A C____ C
GAM197 KIAA1508 3' GGATATCACATAATGCC
                                  2614
                                         TCGTA A
                    GGCATT AT TGATATTC
                     CCGTAA TA ACTATAGG
                        С
GAM197 MTHFS 3' ATTGTAATTATGAAATACCT 1302
                                             _ TG
                    AGG ATTTCGTAAT A AT
                     TCC TAAAGTATTA T TA
                      Α
                           A GT
GAM197 SUCLA2 3' GTCATATTAAGAAACACCT 1066
                                       CA G
                    AGG TTTC TAATATGAT
                    TCC AAAG ATTATACTG
                      AC A
GAM197 LOC149910 3' AGAACTTTATTTACCATGAAAT 3140
                                             AAT__ TA
                       AGGCATTTCGT ATGA TTCT
        GCCT
                    TCCGTAAAGTA TATT AAGA
                         CCATT TC
GAM197 LOC222171 3' GAATATTTACACAATGCCT 3575
                                           TC ATAT
                    AGGCATT GTA GATATTC
                    TCCGTAA CAT TTATAAG
                       CA
GAM198 ZNF24 3' GACAAATACATTATTTCTG 1342
                                           _ AA
                    TAGAAATAATG AT GTC
                     GTCTTTATTAC TA CAG
                         A AA
GAM198 ALS2CR12 3' GATGGTTGGCACACCATTTCTG 2471
                                            AA ATAAGT
        TA
                     TATAGAAAT TG CCATC
                     ATGTCTTTA AC
                                  GGTAG
                        CC ACGGTT
GAM198 FLJ10508 3' GATGGCTCTTATCATCATCTTT 1783
                                        АА
                                                 T_
        ATA
                      TATAGA AT ATGATAAG CCATC
                    ATATTT TA TACTATTC GGTAG
                       C
                            TC
GAM198 FLJ13197 3' GATTCATCATTATTCCTA 2072
                                        Α
                                            Α
                    TAG AATAATGAT AGTC
```

TCC AAAGTATTA ATTGTAA

```
ATC TTATTACTA TTAG
                      C
                          C
GAM198 FLJ21934 3' GATGATGTCATTACTTCTATA 2085
                                               Α
                     TATAGAA TAATGATA GTC
                     ATATCTT ATTACTGT TAG
                        C
                            AG
                                        AATAAT _
GAM198 FLJ23132 3' ATGGACTTAATCTCTG
                                 3691
                     TAGA
                          GAT AAGTCCAT
                     GTCT CTA TTCAGGTA
GAM198 KIAA0470 3' ATGGACTTCTTCATCTGTA 1555
                                          AATAA T
                     TATAGA TGA AAGTCCAT
                     ATGTCT ACT TTCAGGTA
                           TC
GAM198 LEPROTL1 3' GCTGCGTATTATTTCTATA 1620
                                             ATA
                     TATAGAAATAATG AGT
                     ATATCTTTATTAT TCG
                          GCG
GAM198 LYSAL1 5' GACCCCAGCATTATTTCTATA 1164
                                              ATAA
                     TATAGAAATAATG GTC
                     ATATCTTTATTAC CAG
                          GACCC
GAM198 RAB40A 5' GATGGATGCATGCATTATTTC 3229
                                             ATAA
                     GAAATAATG GTCCATC
                     CTTTATTAC TAGGTAG
                        GTACG
GAM198 STK38L 3' GATAGGGTTTCATTTATTTCTA 2845
                                             _ TA GT _
         TA
                      TATAGAAATAA TGA A CC ATC
                     ATATCTTTATT ACT T GG TAG
                         T __ TG A
GAM198 ZNF363 3' GATAGACTTATCATAGCTCTAT 2974
                                           AAA
                                                  C
         Α
                     TATAGA TA TGATAAGTC ATC
                     ATATCT AT ACTATTCAG TAG
                       CG _
GAM198 LOC1464813' GACAGTCATGCATTTCTATA 3093
                                             A_ AA
                     TATAGAAAT ATGAT GTC
                     ATATCTTTA TACTG CAG
                        CG A_
```

GAM198 LOC152008 3' ATGGAGGCATTATTCTA 3165

TAGAAATAATG TCCAT

ATAAG

```
ATCTTTATTAC AGGTA
                        GG___
GAM198 LOC153020 3' GATGGACCCTTCAAGCAATTTC 3178
                                            AA TAA
        TATA
                      TATAGAAAT TGA GTCCATC
                    ATATCTTTA ACT CAGGTAG
                        ACGA TCC
GAM198 LOC199786 3' GCTTAAGCCATTATTTCTG 3433
                    TAGAAATAATG TAAGT
                    GTCTTTATTAC ATTCG
                        CGA
GAM198 LOC220766 3' ATGGACTTCTTCATCTGTA 3498
                                          AATAA T
                    TATAGA TGA AAGTCCAT
                    ATGTCT ACT TTCAGGTA
                        ___ TC
GAM199 ADAM12 3' CTAGAGCACTGCCACCAGTA 1029
                                         A A AAT
                    TACT GGT GCA TG TCTAG
                    ATGA CCA CGT AC AGATC
                      _ C C__ G
GAM199 HOXC13 3' CTAGATGTAGATGCTGCCTA 2538
                                           AAT
                    TAGGTAGCA TGTCTAG
                    ATCCGTCGT GTAGATC
                        AGAT
GAM199 NRIP1 3' CTAGACAATTTCTTCTA 2549 T C
                    TAGG AG AAATTGTCTAG
                    ATCT TC TTTAACAGATC
GAM199 RRM2B 3' CTAAACAATTTGCATTTA 2798
                                            С
                    TAGGT GCAAATTGT TAG
                    ATTTA CGTTTAACA ATC
                         Α
GAM199 BIRC4 3' TTAGCATTTGCTACCAAGTA 806
                                           TT
                    TACT GGTAGCAAAT G CTAG
                    ATGA CCATCGTTTA C GATT
```

GAM199 FLJ11301 3' GCGGTATTTACTACCTAG 1822 C __
CTAGGTAG AAAT TGT
|||||||||||||||||
GATCCATC TTTA GCG
A TG

GAM199 LAP1B 5' AGGCAGGTTTGCTACACAG 2696 AG __

Α

GAM199 LAP1B 5' AGGCAGGTTTGCTACACAG 2696 AG _ CT GTAGCAAAT TGTCT || ||||||||||||

```
GA CATCGTTTG ACGGA
                     CA
                         G
GAM199 MGC11324 3' TAGATCTGTACCTAGTA 2273 G AATT
                    TACTAGGTA CA GTCTA
                    ATGATCCAT GT TAGAT
                       _ C__
GAM199 PRO2958 3' ACACCTTTGCTACCAGTA 1841
                                      A T_
                    TACT GGTAGCAAA TGT
                    ATGA CCATCGTTT ACA
                          CC
GAM199 SH3BGRL2 3' CTAGACAAAGCTACCCAG 2208
                                            AAA
                    CT GGTAGC TTGTCTAG
                    GA CCATCG AACAGATC
                     C A
GAM199 LOC144997 3' CTAGACAGATATCCACTTAGTA 3271
                                           AGCAAA
                    TACTAGGT TTGTCTAG
                    ATGATTCA GACAGATC
                       CCTATA
GAM199 LOC148809 3' CTAGACAACATGACCCTACC 3125
                                           ___ AA
                    GGTAG CA TTGTCTAG
                    CCATC GT AACAGATC
                      CCA AC
GAM199 LOC219540 3' CTAGACAATTTTTTTAG 3612
                                        TAGC
                    CTAGG AAATTGTCTAG
                    GATTT TTTAACAGATC
                      TT
GAM200 PTGER3 3' CTATAGAGTATTCCATAATTTG 790 T AC _
        AA
                     TTCAA TTAT GGAT TTCTATAG
                    AAGTT AATA CTTA GAGATATC
                      T C_ T
            3' CTATAGATGATATTTTAAATTG 1416
GAM200 SIRT1
                                          TACGGATT
        AA
                     TTCAATTTA TCTATAG
                    AAGTTAAAT AGATATC
                        TTTATAGT
GAM200 FLJ10898 3' AGAAACTGTTAAATTGAA 2526
                                        ТА
                    TTCAATTTA ACGG TTTCT
                    AAGTTAAAT TGTC AAAGA
GAM201 FLJ10511 3' ATGCCTATAATACCATAATGCC 1784 C _ ACACC
        AG
                     CT GT TTATG ATAGGCAT
```

```
GA CG AATAC TATCCGTA
                      C T CATAA
GAM201 KIAA1462 3' ATGCCTATAATTAGGAAGGAGT 3521
                                          G A CACC
                     ACTC TTT TGA ATAGGCAT
                     TGAG AAG ATT TATCCGTA
                      G G AA
GAM201 MESDC2 3' CCCTGGTGGCATAAACGAGT 2950
                                              A TA
                     ACTCGTTTATG CACCA GG
                     TGAGCAAATAC GTGGT CC
                         G C_
GAM201 LOC149620 5' ATGCCTACAAAGGAAATGAGT 3135
                                              ATGACACCA
                     ACTCGTTT
                                TAGGCAT
                     TGAGTAAA
                                ATCCGTA
                        GGAAAC
GAM201 LOC219988 5' ATGCCTACAGTGTCTGTATTAG 3534
                                            GTT CA
         Α
                     TC TAT GACAC TAGGCAT
                     AG ATG CTGTG ATCCGTA
                      ATT T AC
GAM202 BHMT2 3' CTGAAATAATCGAACAGGAAA 1730
                                           A TA
                     TTTCT GTTC ATTATTTCAG
                     AAAGG CAAG TAATAAAGTC
GAM202 COL15A1 3' AAATAATCTGAAACTAGAAA 862
                                            TΑ
                     TTTCTAGTT C ATTATTT
                     AAAGATCAA G TAATAAA
                        A TC
GAM202 PDGFRA 3' TCTGAAATAATGGGATTAGAAA 1280
                     TTTCTAGTTCTA TTATTTCAGA
                     AAAGATTAGGGT AATAAAGTCT
GAM202 DORFIN 5' TTCTGGCCTCCAGAACTAGA 1631
                                            AATTATT
                     TCTAGTTCT
                                TCAGAA
                     AGATCAAGA
                                 GGTCTT
                        CCTCC_
GAM202 FLJ20034 5' TCTGTGATAAGCAGAACTAGAA 1732
                                              AA T
         Α
                     TTTCTAGTTCT TTATT CAGA
                     AAAGATCAAGA AATAG GTCT
                         CG T
GAM202 KIAA0831 5' TCTGCATTGAACTAGAAA
                                  1589
                                           T TATTT
                     TTTCTAGTTC AAT CAGA
```

```
AAAGATCAAG TTA GTCT
                        _ C___
GAM202 MBLL39 3' TTCTGAAATAATCAGCAGAAA 1243 A CTA
                    TTTCT GTT ATTATTTCAGAA
                    AAAGA CGA TAATAAAGTCTT
                      _ C__
GAM202 TSP-NY 3' CTGGGAGCAGAACTAGAAA 2261
                                            AATTA TT
                    TTTCTAGTTCT T CAG
                     AAAGATCAAGA A GTC
                         CG GG
GAM202 LOC112840 3' CTGAAAGTAGAACTGAAA 2384
                                             ATTA
                    TTTC AGTTCTA TTTCAG
                    AAAG TCAAGAT AAAGTC
                         G
GAM202 LOC136895 3' AAATATTAGAACTAGAAA 2458
                                             Т
                    TTTCTAGTTCTAAT ATTT
                    AAAGATCAAGATTA TAAA
GAM202 LOC145790 5' TTCTGAAATAATCTCTGGAGG 3083
                                            TTCTA
                    TTTCTAG ATTATTTCAGAA
                     GGAGGTC TAATAAAGTCTT
                       TC
GAM202 LOC151040 3' TCAGGGATCTAGAACTAGAAA 3153
                                             ATT TT A
                    TTTCTAGTTCTA AT CGA
                    AAAGATCAAGAT TA G CT
                         C__ GG A
GAM202 LOC157869 3' TTCTGAAATAATTTCAAGC 3207
                                         CT
                    GTT AATTATTTCAGAA
                     CGA TTAATAAAGTCTT
                      ACT
GAM202 LOC222028 3' TTCTAAGTAGTTAAAATTAGAA 3631
                                         С
                                                 C
                     TTTCTAGTT TAATTATTT AGAA
                     AAAGATTAA ATTGATGAA TCTT
GAM202 LOC2222523' TCAGGGATCTAGAACTAGAAA 3652
                                             ATT TT A
                    TTTCTAGTTCTA AT C GA
                     AAAGATCAAGAT TA G CT
                         C_ GG A
GAM203 FLJ20485 3' TGTGATGGAGTATAC
                                1875
                                        CGA T
                    GTATACT CCATC ACG
```

CATATGA GGTAG TGT

GAM203 LOC132617 3' CGTAGATGATGAATGA 3040 A TCGAC TCGT TAC CATCTACG AGTA GTG GTAGATGC A TA GAM204 PER2 3' AGATATGTAAATAAGCTCTCA 2013 A T AC A AG GC GTTTACATATCT A TC CG TAAATGTATAGA C T AA GAM204 SLC14A2 3' AGATATGTTTAGTTTAGACTTT 1360 GC__ GTTT ATA TATAAAGT AC ACATATCT ATATTTCA TG TGTATAGA GATT ATT GAM204 C20orf82 3' ATGTAAACGCCCACCTTA 3316 A CA TAA GTG CGTTTACAT ATT CAC GCAAATGTA C CC GAM204 DKFZp566D234 3' ATATGTAAATTATGCTTTA 2610 CAC TAAAGTG GTTTACATAT ATTTCGT TAAATGTATA ΑT GAM204 EFS2 3' AGACATGGGTGTGCACCTTA 1257 TTTA A Α TAA GTGCACG CAT TCT ATT CACGTGT GTA AGA GG C С GAM204 FLJ13194 3' ATGTTTATGCACACTTTATA 2140 CA TT TATAAAGTG CGT ACAT ATATTTCAC GTA TGTA AC TT GAM204 ZNF291 3' AGATATGGCATGTACTTTA 1930 C TTA TAAAGTGCA GT CATATCT ATTTCATGT CG GTATAGA Α_ GAM204 LOC157503 3' ATGAAACCATGCACTTTGTA 3380 C_ A TATAAAGTGCA GTTT CAT ATGTTTCACGT CAAA GTA AC GAM204 LOC254431 3' AGATATGTAAACACTGGTAC 3716 AC__ GTGC GTTTACATATCT

```
GTCA
GAM205 BRCA1 3' CTAATGAAGTGGGCTCCA 1390
                                       AAT
                     TG GA GTCT TTTCATTAG
                     11 11 1111 111111111
                     AC CT CGGG GAAGTAATC
GAM205 C18orf1 3' AGTGAAGGACCTCTCA
                                 2562
                                        A TT
                     TGAGA GTCT TTCATT
                     ACTCT CAGG AAGTGA
                       С
GAM205 CENTD1 3' GCTAATGATGACATCTCA 1614
                                          A TTTT
                     TGAGA GTC TCATTAGC
                     ACTCT CAG AGTAATCG
                       ΑТ
GAM205 CENTD1 3' GCTAATGATGACATCTCA 2473
                                          A TTTT
                     TGAGA GTC TCATTAGC
                     ACTCT CAG AGTAATCG
                       A T
GAM205 CPNE3 3' CTAATGAAAAACTGCTTA 1068
                                         A CT
                     TGAG AGT TTTTCATTAG
                     ATTC TCA AAAAGTAATC
GAM205 EPB72 3' CTAATGAAAAACATTACTC 1086
                                        A C
                     GAG AGT TTTTTCATTAG
                     CTC TTA AAAAAGTAATC
                      A C
GAM205 GBP1
             3' GCTAATGAAGAAAACTTCTC 894
                                          С
                     GAGAAGT TTTTTCATTAGC
                     CTCTTCA AAGAAGTAATCG
                        Α
GAM205 MMP2
             3' GCCAATGGAGACTGTCTCA 1124
                                             TTT A
                     TGAGA AGTCTT CATT GC
                     ACTCT TCAGAG GTAA CG
                           ___ C
                       G
GAM205 PSCD4 3' CTAACAGGAAACACTTCTCA 1447
                                            С
                                             CA
                     TGAGAAGT TTTTT TTAG
                     ACTCTTCA AAAGG AATC
                        C AC
GAM205 SLC7A6 3' GCTAATGAAATGGGAACCTC 1077
                                          AAG T
                     GAG TCT TTTCATTAGC
```

CATG CAAATGTATAGA

```
CTC GGG AAAGTAATCG
                      CAA T
GAM205 XKRY 5' CTAATGAAAATTATTCTC 1142
                                       GTCT
                    GAGAA TTTTCATTAG
                    CTCTT AAAAGTAATC
                      ATT
GAM205 XKRY 5' CTAATGAAAATTATTCTC 2551
                                       GTCT
                    GAGAA TTTTCATTAG
                    CTCTT AAAAGTAATC
                      ATT
GAM205 C1orf16 3' GCCAATGGGAACTTCTCA 1568
                                         CTT TT A
                    TGAGAAGT T CATT GC
                    ACTCTTCA A GTAA CG
                        GG C
GAM205 C3orf4 3' GCTAATGTCTGTTAGACTTTTC 1890
                                           TTTT
        Α
                     TGAGAAGTCT CATTAGC
                    ACTTTTCAGA
                                GTAATCG
                        TTGTCT
GAM205 FLJ10483 3' GCCAATGAAAATGTGCTTC 1781
                                         CT A
                    GAAGT TTTTCATT GC
                    CTTCG AAAAGTAA CG
                      TGT
GAM205 FLJ12568 3' GCTAATGAAAATGTTTTCT 2122
                                         TCT
                    AGAAG TTTTCATTAGC
                    TCTTT AAAAGTAATCG
                      TGT
GAM205 FLJ20340 3' GCTTTGAAAAACTTTTCA 1750
                                         CT TT
                    TGAGAAGT TTTTCA AGC
                    ACTTTTCA AAAAGT TCG
                           T_
GAM205 FLJ20727 5' GCTAATGGACTTGACTCTCA 1769
                                          A TTT
                    TGAGA GTC TTCATTAGC
                    ACTCT CAG AGGTAATCG
                      _ TTC
GAM205 FLJ20736 3' CTAATGGACATCTTCTCA 1770
                                         TCTTT
                    TGAGAAG TTCATTAG
                    ACTCTTC AGGTAATC
                       TAC__
GAM205 PDE1C 3' GCTAATGACCTGGCTTTCA 1172
                                         A TTTT
                    TGAGA GTC TCATTAGC
```

```
_ TCC_
                                         CTA
GAM205 TOB2 5' GCTAAGGGTGAAACTTTTCA 3680
                     TGAGAAGT TT TTC TTAGC
                     ACTTTTCA AG GGG AATCG
                        A T _
GAM205 TSC22 3' CTAATGAAATGGATTTCCCA 1264
                                            Τ
                     TG GAAGTCT TTTCATTAG
                     AC CTTTAGG AAAGTAATC
                     С
                        Т
GAM205 TSP-NY 3' GCTAAGAATGAAAAAGACTTCT 2262
        C
                     GAGAAGTCTTTTTCAT TAGC
                     CTCTTCAGAAAAAGTA ATCG
                           AGA
GAM205 TUCAN 3' GCTAACAAAAGCTTCTCA 1598
                                         T TCA
                     TGAGAAG CTTTT TTAGC
                     ACTCTTC GAAAA AATCG
                       _ C__
GAM205 LOC138241 5' GCCAATGGGGGAATTCTCA 3019
                                           GTC TT A
                     TGAGAA TTT CATT GC
                     ACTCTT AGG GTAA CG
                       A_ GG C
GAM205 LOC152345 3' AATGGAGAGACTTCCG
                                             Т
                                  3170
                     TG GAAGTCTTTT CATT
                     GC CTTCAGAGAG GTAA
GAM205 LOC154214 5' CTAATGAAAAGGACCTTA 3189
                                          AA
                     TGAG GTCTTTTTCATTAG
                     ATTC CAGGAAAAGTAATC
GAM205 LOC154790 5' AATGAAAAGAACTTCCCA 3192
                                         A CT
                     TG GAAGT TTTTCATT
                     AC CTTCA AAAAGTAA
                     C AG
GAM205 LOC158427 3' CTAATGAAAATAACTCCCA 2478
                                         A A CT
                     TG GA GT TTTTCATTAG
                     AC CT CA AAAAGTAATC
                     C _ AT
GAM205 LOC161003 5' AGTATAAAAGCTTCTCA 2520
                                          T TC
                     TGAGAAG CTTTT ATT
```

ACTTT CGG AGTAATCG

```
ACTCTTC GAAAA TGA
                        TA
GAM205 LOC200830 3' GCTAATGGGCTGACTACTCA 3480 A TTT
                    TGAG AGTC TTCATTAGC
                    ACTC TCAG GGGTAATCG
                      A TC
GAM205 LOC221421 3' GCTAATGAAAGAGATTCT 3558
                                         G
                    AGAA TCTTTTTCATTAGC
                    TCTT AGAGAAAGTAATCG
GAM205 LOC257017 5' CTAAGTTAAGACTTTTCA 3736
                                           TTTCA
                    TGAGAAGTCTT TTAG
                    ACTTTTCAGAA AATC
                        TTG
GAM205 LOC257353 5' GCTAATAATGATGGCCTCTCA 3738
                                          A T TTC
                    TGAGA GTC TT ATTAGC
                    ACTCT CGG AG TAATCG
                      C T TAA
GAM205 LOC90459 3' GCCAATGAATTTCTGCTTTTCA 2642
                                            CTTT A
                    TGAGAAGT TTCATT GC
                    ACTTTTCG AAGTAA CG
                       TCTTT
                                         _ CA CCC
GAM206 CXADR 3' TATTGAGATGACACTAGGTGC 820
                    GCAC TAG TC TTTCAATA
                    CGTG ATC AG AGAGTTAT
                      G AC T_
GAM206 EPB72 3' TATTGAGGATTGAGCCAGTGC 1087
                                         A A CCC
                    GCACT GC TC TTTCAATA
                    CGTGA CG AG GGAGTTAT
                      C _ TTA
GAM206 FCAR
            5' ATTGAAAGGAGAGCAACGG 880
                                       CACTA A C
                    CCG GC TC CCTTTCAAT
                    GGC CG AG GGAAAGTTA
                     AA___ A
GAM206 FCAR
            5' ATTGAAAGGAGAGCAACGG 2400
                                        CACTA A C
                    CCG GC TC CCTTTCAAT
```

GGC CG AG GGAAAGTTA

CCG GC TC CCTTTCAAT

CACTA A C

AA___ A

5' ATTGAAAGGAGAGCAACGG 2401

GAM206 FCAR

```
GGC CG AG GGAAAGTTA
                    AA___ A
GAM206 FCAR 5' ATTGAAAGGAGAGCAACGG 2402 CACTA A C
                   CCG GC TC CCTTTCAAT
                   GGC CG AG GGAAAGTTA
                    AA___ _ A
GAM206 FCAR 5' ATTGAAAGGAGAGCAACGG 2403
                                      CACTA A C
                   CCG GC TC CCTTTCAAT
                   GGC CG AG GGAAAGTTA
                    AA___ _ A
GAM206 FCAR
           5' ATTGAAAGGAGCAACGG 2404 CACTA A C
                   CCG GC TC CCTTTCAAT
                   GGC CG AG GGAAAGTTA
                    AA A
GAM206 FCAR 5' ATTGAAAGGAGGAGCAACGG 2406 CACTA A C
                   CCG GC TC CCTTTCAAT
                   GGC CG AG GGAAAGTTA
                    AA___ A
GAM206 KCNAB1 3' TGAAAATGCTAGTGGG 2585
                                         CCCC
                                     G
                   CC CACTAGCAT TTTCA
                   GG GTGATCGTA AAAGT
GAM206 NCOA6 3' TATTGAAAGGAGCTAATGC 1468 C ATCC
                   GCA TAGC CCTTTCAATA
                   CGT ATCG GGAAAGTTAT
                    А А
GAM206 SDHC 3' TATTGAAAGAAGAGAGGTGGGG 2856 G AGCA CC
                   CC CACT TC CTTTCAATA
                   GG GTGG AG GAAAGTTAT
                    G AG_ AA
GAM206 CBLN1 5' GGAGGGGACGCTAGTCGCGG 1101
                                        _ A
                   CCGC ACTAGC TCCCCTTT
                   GGCG TGATCG AGGGGAGG
GAM206 CSTF2 3' TATTGAAAAAAGATGACCTGC 819
                                      CTAG CCC
                   GCA CATC TTTCAATA
                   CGT GTAG AAAGTTAT
                    CCA_ AAA
GAM206 GS3955 5' AAAGGGGGTGCAGCGCGG 1953
                                       ΑΑ
                   CCGC CT GCATCCCCTTT
```

```
GGCG GA CGTGGGGGAAA
GAM206 KIAA0184 3' ATTGAAAGAGGTGTGCTGG 2715
                                           TC _
                     CTAGCA CC CTTTCAAT
                     GGTCGT GG GAAAGTTA
                        GT A
GAM206 MGC14697 5' GTTGAAGGACACCAGCTGCGG 2276
                                              CTA ATCCC_
                     CCGCA GC
                               CTTTCAAT
                     GGAAGTTG
                     GGCGT CG
                       ACCACA
GAM206 RRN3
             3' AGGTGGAAGTTGCTAGTGC 1827
                     GCACTAGCA TCC CCT
                     CGTGATCGT AGG GGA
                         TGA T
GAM206 WDR13 5' AAGGAATGCTAGGCGG
                                  1759
                                             CC
                     CCGC CTAGCAT CCTT
                     GGCG GATCGTA GGAA
                          \mathsf{A}_{-}
GAM206 LOC219287 3' GAAAGAGGGATGCTACACGG 3609
                                            CAC
                     CCG TAGCATCCC CTTTC
                     GGC ATCGTAGGG GAAAG
                      AC
GAM206 LOC221979 5' ATTGAAACTGCTAGTG
                                           TCCCC
                                   3571
                     CACTAGCA TTTCAAT
                     GTGATCGT AAAGTTA
                        С
GAM206 LOC255328 3' TATTGAAAGGGCTGCACCATGC 3710
                                             CTA TC
                     GCA GCA CCCTTTCAATA
                     CGT CGT GGGAAAGTTAT
                      ACCA C_
GAM206 LOC257115 3' TATTGAAAGGAAAGTGCTATCG 3709
                                            CAC
                                                  CC_{-}
                     CG TAGCAT CCTTTCAATA
                     11 111111 111111111
                     GC ATCGTG GGAAAGTTAT
                      T___
                           AAA
GAM206 LOC51145 3' ATTGAAAGGGGAAATGTGTCA 1666 C TAGCA
                     C GCAC TCCCCTTTCAAT
                     A TGTG
                            AGGGGAAAGTTA
                      C TAA_
GAM207 BCL11A 3' AAACTAGAACAGGTATAT 2018
                                             TΑ
                     ATATACCTGTTTT TTT
```

```
TATATGGACAAGA AAA
```

TC GAM207 C8orf1 3' GAAACCTTGACAGGTACTTCA 1099 TΑ TTTA TGA TACCTGTT TTTC ACT ATGGACAG AAAG TC TTCC GAM207 KPNA1 3' AAATAAAAACAGTATC 3159 TAC GATA CTGTTTTTATTT CTAT GACAAAAATAAA GAM207 NRXN1 3' AAATAAAAACAAGTATCTCA 2457 T C TGA ATAC TGTTTTTATTT **ACT TATG ACAAAAATAAA** C A GAM207 NRXN1 3' AAATAAAAACAAGTATCTCA 1158 T C TGA ATAC TGTTTTTATTT **ACT TATG ACAAAAATAAA** C A GAM207 PCDHGA8 3' AAATAATTTTTAAGGTGTATCA 1459 GTTT TGATATACCT TTATTT 111111 **ACTATGTGGA AATAAA** ATTTTT GAM207 SNX5 3' GAAATATCTACAGGTATAT 1500 TTT ATATACCTGT TATTTC TATATGGACA ATAAAG TCT GAM207 BNIP2 3' GAAATATGCAGGTATAT 2762 TTT ATATACCTGT TATTTC TATATGGACG ATAAAG T___ GAM207 DRIL2 3' AAATGAAAACAGATCA 1305 **ATAC** TGAT CTGTTTTTATTT ACTA GACAAAAGTAAA GAM207 DVS27 3' AAATAAAAGCAGAATGTATATC 2335 Α TGATATAC CTGTTTTTATTT ACTATATG GACGAAAATAAA TAA GAM207 FLJ12960 3' GAAGGGGGAGCAGGCACATCA 2074 ATA TA

TGAT CCTGTTTT TTTC

1111 11111111 1111

```
ACTA GGACGAGG GAAG
                       CAC
                             GG
GAM207 FLJ20793 3' GAATACTAACAGGTATTTCA 3542
                                          Т
                                               TT
                     TGA ATACCTGTT TATTT
                     ACT TATGGACAA ATAAG
                      Т
                           TC
GAM207 KIAA0040 3' GAAATAAAATTAAAGGTATA 1515
                                            GT__
                     TATACCT TTTTATTTC
                     ATATGGA AAAATAAAG
                        AATT
GAM207 KIAA1349 3' GAAATAAAAGCAGCATCA 2893
                                          ATAC
                     TGAT CTGTTTTTATTTC
                     ACTA GACGAAAATAAAG
GAM207 KIAA1373 3' AAATATTAACAGGTATAT 2903
                                            TT
                     ATATACCTGTT TATTT
                     TATATGGACAA ATAAA
                          TT
GAM207 SCDGF-B 3' AAGTAGAAAGGTATATCA 2147
                                             GT
                     TGATATACCT TTTTATTT
                     ACTATATGGA AAGATGAA
GAM207 SCDGF-B 3' AAGTAGAAAGGTATATCA 2314
                                             GT
                     TGATATACCT TTTTATTT
                     ACTATATGGA AAGATGAA
GAM207 LOC1214413' AAATAAAAACAGGAATATTA 2991
                                            Α
                     TGATAT CCTGTTTTTATTT
                     ATTATA GGACAAAAATAAA
                        Α
GAM207 LOC157729 3' AAATAAAGATAGCATGTCA 3205
                                            AC
                     TGATAT CTGTTTTTATTT
                     ACTGTA GATAGAAATAAA
                        C_{-}
GAM207 LOC200339 3' GAAGTTCACAGGTATATC 3475
                                              TTTT
                     GATATACCTGT ATTTC
                     CTATATGGACA TGAAG
                          CT_
GAM207 LOC221300 3' AAATGGCAAACAGGTATAT 3545
                     ATATACCTGTTT TTATTT
```

TATATGGACAAA GGTAAA

C

GAM207 LOC257235 5' GAAACCATTGCAGGTATTTCA 3728 T TTTTA TGA ATACCTGT TTTC ACT TATGGACG AAAG Т TTACC GAM207 LOC93333 5' AAATGGTTAAGGGTATATCA 2932 **GTTT** TGATATACCT TTATTT ACTATATGGG GGTAAA **AATT** GAM208 PCDH7 3' AAACAGTATTAATGCAGAAATG 938 Α_ **CGT TC GCATTAATACTGTTT** GTA AG CGTAATTATGACAAA ΑА GAM208 TRC8 3' AAACAGTATCAATGTTGA 1365 TCG CATT ATACTGTTT AGT GTAA TATGACAAA T C GAM208 LOC145225 3' AAACAGTATTAACCCTGC 3275 GCA TTAATACTGTTT 111 111111111111 CGT AATTATGACAAA CCC GAM209 BHMT2 3' AGCATTATTGAAATAAATGTTT 1729 C TGG TAGACATTTA CA GATGCT Α ATTTGTAAAT GT TTACGA AAA TA_ 3' AGCATCCTGATTAAATGTCTG 3409 CCA GAM209 CANX TAGACATTTA TGGGATGCT GTCTGTAAAT GTCCTACGA TA_ GAM209 COPG2 3' AGCAGATCAAGCAAATGTCTA 3194 ACCA GA TAGACATTT TGG TGCT ATCTGTAAA ACT ACGA CGA_ AG GAM209 MS4A1 3' CATTTCACAAATGTTTAGT 711 ACCA GG ACTAGACATTT TG ATG TGATTTGTAAA AC TAC C___ TT GAM209 SEL1L 3' CATGTGTATTAATGTCTA 1180 TAGACATT TAC CATG

```
ATCTGTAA ATG GTAC
```

TT T

GAM209 TPK1 3' CATCCTTAAATGTCTA CCAT 1988 TAGACATTTA GGGATG ATCTGTAAAT TCCTAC GAM209 CYorf14 3' CTGTGGGCAATAAATGTCTG 1839 TAGACATTTA CCATGG GTCTGTAAAT GGTGTC AACG GAM209 HSPC228 3' AGCATTTCATAAATGTTTAGT 1688 CCA GG ACTAGACATTTA TG ATGCT TGATTTGTAAAT AC TACGA TT GAM209 MGC1127 3' AGCTGGGTAATAAATGTCTA 2336 ATGGGAT TAGACATT TACC GCT 11111111 1111 ATCTGTAA ATGG CGA ATA GT___ GAM209 SLC16A4 3' AGCATTCTGAGAAATGTCTA 1144 ACCA TAGACATTT TGGGATGCT ATCTGTAAA GTCTTACGA GA GAM209 LOC147180 5' CACCTGTTTAAATGTCTG 3292 CC A TAGACATTTA ATGGG TG GTCTGTAAAT TGTCC AC T__ GAM209 LOC148195 5' GCATCCCATTGGTGTCAGT 3297 A ATTT ACT GAC ACCA TGGGATGC TGA CTG TGGT ACCCTACG _ ___ T GAM209 LOC158572 3' AGCATCCTTTCAATAAATGCCT 3221 CCAT_ G TAG CATTTA GGGATGCT GTC GTAAAT TCCTACGA С **AACTT** GAM209 LOC201595 3' AGCACTGCTGTAAATGTCTAG 3453 CATG A CTAGACATTTAC GG TGCT GATCTGTAAATG TC ACGA TCG_ _ GAM209 LOC203427 5' CATTTAGGAAGCAAGATGTCTA 3464 ACCATG G CTAGACATTT GGATG

```
GATCTGTAGA
                                   TTTAC
                          ACGAAGGA
GAM210 PDE1A 3' ATCAGCATGAAAACATCCTA 1171 AT
                                                GA
                     TAG TGTTTTCA GT GAT
                     ATC ACAAAAGT CG CTA
                            A A_
                       CT
GAM210 ELAC1 3' AATCATCTCACCCCGAAATGCA 3506
                                            _ A__
                     TGT TTTC GTGAGATGATT
                     ACG AAAG CACTCTACTAA
                       T CCC
GAM210 LOC154790 5' AATCAGATCATATGAAAACAAT 3191
                                                 _ GA
         CTA
                       TAGATTGTTTTCA GTGA TGATT
                     ATCTAACAAAAGT TACT ACTAA
                           A AG
GAM210 LOC158434 3' CAGTCACTAAAAACAATC 3389
                                             С
                                               GA
                     GATTGTTTT AGTGA TG
                     CTAACAAAA TCACT AC
                         A G_
GAM211 MAP3K5 3' TCTGAGTAGAAATGCGT 1261
                                           Α
                                               TT
                     ACGCAT TTCTACTC GGA
                      111111 11111111 111
                     TGCGTA AAGATGAG TCT
GAM211 DKFZP564F0522 3' TAATTCCACAGTCAGAACATGC 2825
                                               A CT
                     GCAT TTCT ACT TGGAATTA
                     CGTA AAGA TGA ACCTTAAT
                       C C C_{-}
GAM211 GPCR150 3' TAATTCCAAGAAGTTTTTATAG 1496
                                            GC TTCT _
         Т
                      AC ATA ACT CTTGGAATTA
                     TG TAT TGA GAACCTTAAT
                      A_ TTT_ A
GAM211 SLC26A7 3' TAATTCAGTATAGAATATGC 2340
                                              CT TG
                      GCATATTCTA CT GAATTA
                      CGTATAAGAT GA CTTAAT
                          AT _
GAM211 SLC6A14 3' TAATTTCAAATAGAATATG 1369
                                             CTC
                     CATATTCTA TTGGAATTA
                     GTATAAGAT AACTTTAAT
                         A_{-}
GAM211 LOC116228 3' TAGTTCTGAATTAAAATATGC 2980
                                              C CTC TG
                     GCATATT TA T GAATTA
```

```
A TA GT
                                          A____ III
GAM212 CCNC 3' ATAATGTCTTCAGTGGAACAC 1192
                     GTGTTCCA
                              ACATTA T
                          CACAAGGT
                               TGTAAT A
                        GACTTC III
GAM212 MSL3L1 5' TAATGGTTGGAACAGAA 1331
                                        G
                                            Α
                     TTC TGTTCCAA CATTA
                     AAG ACAAGGTT GTAAT
                          G
GAM212 THBS1 3' TAATGTTTGCACACTGAA 1004
                                        _ TC
                     TTC GTGT CAAACATTA
                     AAG CACA GTTTGTAAT
                      T C
GAM212 CSRP3 3' TAATGCTTGGAATGGGAG 1031
                                        G A
                     TTC TGTTCCAA CATTA
                     GAG GTAAGGTT GTAAT
                      G
                          С
GAM212 FLJ11181 5' TAATGTTCGGCAAACATGAA 1817
                                            __ A
                     TTCGTGTT CC AACATTA
                     AAGTACAA GG TTGTAAT
                        AC C
GAM212 FLJ23132 3' TAATGTTTCCAACATGAA 3692
                                          CC
                     TTCGTGTT AAACATTA
                     AAGTACAA TTTGTAAT
                        CC
                                      G TC
GAM212 GAB3 3' TAATGTTTGTTACAGAA 2378
                     TTC TGT CAAACATTA
                     AAG ACA GTTTGTAAT
                      _ TT
GAM212 MGC13033 3' TAATGTTTGGAATGGAG
                                   2198
                                         G
                     TTC TGTTCCAAACATTA
                     GAG GTAAGGTTTGTAAT
GAM212 PRO0386 5' TAATGTTCTGTGGAACAT 1844
                     GTGTTCCA AACATTA
                     TACAAGGT TTGTAAT
                        GTC
                                               _ AA
GAM212 LOC149351 5' TAATGTGAGGAAAAACACGGA 3132
                     TTCGTGT TCC ACATTA
```

CGTATAA AT A CTTGAT

```
AGGCACA AGG TGTAAT
                        AAA AG
GAM212 LOC163590 3' TAATGTTTGGACTTGGA 2512 T T
                     TTCG GT CCAAACATTA
                     AGGT CA GGTTTGTAAT
                       \mathsf{T}_{\;\; -}
GAM212 LOC256307 3' TAATGCTACATGGAACATGAA 3726
                                               AA_
                     TTCGTGTTCCA CATTA
                     AAGTACAAGGT GTAAT
                          ACATC
GAM212 LOC87769 3' TAATGTTGAGATACGAA 2912
                                           TC A
                     TTCGTGT CAA CATTA
                     AAGCATA GTT GTAAT
                        GA
GAM212 LOC89890 3' TAATGTTTGAAATACGAA 2574
                                            С
                     TTCGTGTT CAAACATTA
                     AAGCATAA GTTTGTAAT
                        Α
GAM213 GDF8
            5' ACAAGAAAAAGATTATA 1196
                                            CA
                     TATAATCTTTTT TCTTGT
                     ATATTAGAAAAA AGAACA
GAM213 REGL 3' ACCATATAGAAAAAGATTATA 1306
                                              ATCT A
                     TATAATCTTTTTC TGTG GT
                     ATATTAGAAAAG ATAC CA
                           AT___ _
GAM213 DKFZP434J214 3' ACTCAGTGTGGAAAAGA
                                               CTTG
                                      2586
                     TCTTTTTCAT TGAGT
                     AGAAAAGGTG ACTCA
                         TG
GAM213 KIAA0440 5' CTTTTAAATGAAAAAGATTA 1636
                                              СТ
                     TAATCTTTTTCAT TTG GAG
                     ATTAGAAAAAGTA AAT TTC
                           _ T
GAM213 LOC152756 3' ACTCATGATCCAAAAAAGATTA 3363
                                               CATC TG
                     TAATCTTTTT T TGAGT
                     ATTAGAAAAA A ACTCA
                         ACCT GT
GAM213 LOC158428 3' ACTCACATAGGTGAAAAA 2889
                     TTTTTCATCT TGTGAGT
```

AAAAAGTGGA ACACTCA

AAG GAM214 BHLHB3 3' TATGTAAGGGGTGAGACACAAC 2162 GTTGTGTCT CA CC CT ACATA CAACACAGA GT GG GA TGTAT $_$ $_$ G A GAM214 F9 3' GCGTGTGTGTAGACACAC 709 Τ GT GTGTCTACA AC CGC 11 111111111 11 111 CA CACAGATGT TG GCG G T GAM214 FLJ31737 3' TAGCACTGTAGACACAAC 2504 **ACC** GTTGTGTCTACA GCTA CAACACAGATGT CGAT CA_ GAM214 KIAA1505 5' GCATTTAGTAGACACCACG 3638 Т CC CGT GTGTCTAC AA GC GCA CACAGATG TT CG С A TA GAM214 PHRET1 3' GGCGCTGTAGACACAC AC 1947 GTTGTGTCTACA CGCT 111111111111 1111 CAACACAGATGT GCGG С GAM214 RYD5 3' AGCAGCCGTGGACACAACG 3103 **AACC** CGTTGTGTCTAC GCT GCAACACAGGTG CGA **CCGA** GAM214 LOC221337 5' TAGTTCAAGTAAACACAATG 3556 C AACC CGTTGTGT TAC GCTA GTAACACA ATG TGAT A AACT GAM215 ADCY9 3' GTGGTCATTTCAGCCCTA 801 Τ TAGG GCTGAAAT ACCAC ATCC CGACTTTA TGGTG С GAM215 CRAT 3' GTGGGTCATCCCAGCACCTG 1079 AA A A TAGGTGCTG AT ACC CAT GTCCACGAC TA TGG GTG CC C _ GAM215 CRAT 3' GTGGGTCATCCCAGCACCTG 771 AA A A TAGGTGCTG AT ACC CAT

```
GTCCACGAC TA TGG GTG
```

CC C _

GAM215 CXCR4 3' CAGGAGTGGGTTGATTTCAGCA 1028 AA_ AT

CCTA TAGGTGCTGAAAT CCAC CTG

ATCCACGACTTTA GGTG GAC

GTTG AG

GAM215 AGMAT 3' CAGACGTGGTGTGCACACC 2087 C AAATA_ A

GGTG TG ACCAC TCTG

CCAC AC TGGTG AGAC

GTGGTG C

GAM215 DKFZp434E0519 3' CAGATGCGGTGGCTCACACCTA 2240 C AATA A

TAGGTG TGA ACC CATCTG

ATCCAC ACT TGG GTAGAC

CGG C

GAM215 DKFZp762E1312 5' CAGACATGGCCTTAGTACCTA 1823 AATAA CA

TAGGTGCTGA CCA TCTG

ATCCATGATT GGT AGAC

CC___ AC

GAM215 FLJ20619 3' CAGTGAGGTAGCATCTA 1760 GAAATA A T

TAGGTGCT ACC CA CTG

ATCTACGA TGG GT GAC

____ A _

GAM215 FLJ20716 3' CAGATTGCCACCCCAGCACCTA 1768 AAATAAC C

TAGGTGCTG CA ATCTG

ATCCACGAC GT TAGAC

CCCACC_ _

GAM215 FRAT1 3' CAGATGTGGCTACTGACATATC 1217 C AAA A

TA TAGGTG TG TA CCACATCTG

ATCTAT AC AT GGTGTAGAC

_ AGTC C

GAM215 KIAA1656 3' CAGATGTGGCCATCCCTCCTG 2729 TGCT AATAA

TAGG GA CCACATCTG

GTCC CT GGTGTAGAC

CTCC ACC_

GAM215 Rab11-FIP3 3' CAGATGTGGTCACCTCAGTCC 1524 T AATA

GG GCTGA ACCACATCTG

CC TGACT TGGTGTAGAC

CCAC

GAM215 TOMM34 3' AGACATGGTTGTTGCACC 1332 TGA CA

GGTGC AATAACCA TCT

```
AC
GAM215 LOC146337 3' CAGATGCATCTGTTTCAGCCCT 3285
                                            Т
                                               ACCA
        Α
                     TAGG GCTGAAATA CATCTG
                     ATCC CGACTTTGT GTAGAC
                           CTAC
GAM215 LOC147229 3' AGATGCAGGCTCAGCACT 3105
                                            AATAA A_
                     GGTGCTGA CC CATCT
                     TCACGACT GG GTAGA
                        C __ AC
GAM215 LOC158332 3' GGTACTAATTCAGCACCTA 3217
                                             Α __
                     TAGGTGCTGAA TA ACC
                     ATCCACGACTT AT TGG
                         A CA
GAM215 LOC163131 5' AGATGTGATTACATTACT 3245
                                         C AAA C
                     GGTG TG TAA CACATCT
                     TCAT AC ATT GTGTAGA
                      T ___ A
GAM215 LOC221423 3' AGATGTGGCTACAACAT
                                         C AAA A
                                   3551
                     GTG TG TA CCACATCT
                     TAC AC AT GGTGTAGA
                      A ___ C
                                            AAATAAC __
GAM215 LOC222182 5' CAGACATGTGCCCAGCACCT 3639
                     AGGTGCTG
                              CACA TCTG
                     GTGT AGAC
                     TCCACGAC
                        CC_{-}
                               AC
GAM216 B3GALT3 3' GAAGATTACAGTTATGTA 1056
                                           CG
                     TACGTAAC AATCTTC
                     ATGTATTG TTAGAAG
                        ACA
GAM216 LOC159199 5' GAAGATCAAGAGGTTACGTG 3237
                                             GA
                     TACGTAACC ATCTTC
                     ||||||
                     GTGCATTGG TAGAAG
                        AGAAC
GAM217 ACCN2 3' CCACCAGACACTCCTTC 1891
                                           TCT
                     GAAGGAGTGTTT TGG
                     CTTCCTCACAGA ACC
                         CC_{-}
                                            GA__
GAM217 BLAME 3' CCAAAAAAACACAAAGTGCTTC 1892
```

TAGAAG GTGTTTT TTGG

TG

CCACG TTGTTGGT AGA

```
GTCTTC CACAAAA AACC
                       GTGAAA
                                Α
GAM217 DLX4 3' TTGCCACTCCCCACTCCTTCT 2432
                                            TTTTCT
                     AGAAGGAGTG TGGCAA
                     TCTTCCTCAC
                                 ACCGTT
                         CCCCTC
GAM217 DLX4 3' TTGCCACTCCCCACTCCTTCT 870
                                            TTTTCT
                     AGAAGGAGTG TGGCAA
                     TCTTCCTCAC
                                 ACCGTT
                         CCCCTC
GAM217 IGSF6 3' TTTGCCAAGAAAAAAATTCTA 1256
                                          GGAGTG
                     TAGAA TTTTCTTGGCAAA
                     ATCTT
                           AAAAGAACCGTTT
                       AAAA
GAM217 ITPR2 3' CAGGAACAAAACACTGCCT 912
                     AGG AGTGTTT TCTTG
                     TCC TCACAAA AGGAC
                      G
                          ACA
GAM217 IVD
           5' GCTAAAAACACTCATCCTA 913
                                       AAG
                                             CT
                     TAG GAGTGTTTT TGGC
                     111 111111111 1111
                     ATC CTCACAAAA ATCG
                      CTA
GAM217 MAP4K2 3' TGCCAAGAGCCTGCCCCT 1127
                                         A TT
                     AGG GTG TTCTTGGCA
                     TCC CGT GAGAACCGT
                      C CC
GAM217 POLG 3' TGCCAAGAAGATTCCTTCTA 948
                                           GT
                     TAGAAGGA GTTTTCTTGGCA
                     ATCTTCCT TAGAAGAACCGT
GAM217 RET 3' TTGCCAAAACTCCTTCT 1920
                                         GTTTTC
                     AGAAGGAGT
                                TTGGCAA
                     TCTTCCTCA
                                AACCGTT
                        Α
GAM217 SALL2 3' TTGCCAAGAGGTCTCC
                                 2672
                                       TGT
                     GGAG TTTCTTGGCAA
                     1111 11111111111
                     CCTC GGAGAACCGTT
                      T__
GAM217 SLC9A1 3' CCAAGGTCTCACACTCCTCCTG 2886
                                               TT_
                     TAG AGGAGTGT TCTTGG
```

```
GTC TCCTCACA GGAACC
                      C
                           CTCT
GAM217 ZNF132 5' CCAAGAAAGCTAACTCCT 1020
                     AGGAGT GTTTTCTTGG
                     TCCTCA CGAAAGAACC
                       AΤ
GAM217 AD-020 3' TTTGCCAAGAAAATCTGGGCCT 1893
                                           AGT
                     AGG GTTTTCTTGGCAAA
                     TCC TAAAAGAACCGTTT
                      GGGTC
GAM217 AD-020 3' TTTGCCAAGAAAATCTGGGCCT 2524
                                           AGT
                     AGG GTTTTCTTGGCAAA
                     TCC TAAAAGAACCGTTT
                      GGGTC
GAM217 APOL3 3' CCAAGAAAACAGTCTCA 1494 A G
                     A GGA TGTTTT CTTGG
                     A TCT ACAAAA GAACC
                     C G A
GAM217 DJ473B4 3' TTTGCCAAAAAAGTCCCCTA 1881
                                          AA GTG C
                     TAG GGA TTTT TTGGCAAA
                     ATC CCT GAAA AACCGTTT
                      C_ __ A
GAM217 KIAA0475 3' TTTGCCAAAAGCAGTCCTTC 1571
                                               CT
                                            G
                     GAAGGA TGTTTT TGGCAAA
                     CTTCCT ACGAAA ACCGTTT
                       G
GAM217 KIAA1729 3' CCAGGAACACTCCTTC
                                           TT
                                  3458
                     GAAGGAGTGT TCTTGG
                     CTTCCTCACA AGGACC
GAM217 PHYHIP 3' CCACCGGGACACTCCCCCTG 1541
                                                 CT
                                           AΑ
                     TAG GGAGTGTTTT TGG
                     111 1111111111 111
                     GTC CCTCACAGGG ACC
                      CC
                            CC
GAM217 SCAMP-4 3' TGCCAAGAGGCACCCCCTTC 2372
                                                Т
                                            Α_
                     GAAGG GTGTTT CTTGGCA
                     CTTCC CACGGA GAACCGT
                       CC
GAM217 ST6GalNAcl 3' TGCTGAAAAACACTCTTC 1824
                                           G
                                               C TG
                     GAAG AGTGTTTT T GCA
```

```
CTTC TCACAAAA A CGT
                         _ GT
GAM217 TTTY2 5' TGCCAAAAAAACAGGTACTCTT 3396 G ____ C
        CTA
                     TAGAAG AGT GTTTT TTGGCA
                    ATCTTC TCA CAAAA AACCGT
                      _ TGGA A
GAM217 LOC126917 3' TTGCCAAGAAAGACCCC
                                  3001 A G
                    GG GT TTTTCTTGGCAA
                    CC CA GAAAGAACCGTT
                     С
GAM217 LOC128077 3' TTGCTTCTGAAACCCCTCCT 3007
                                        T CTT
                    AGGAG GTTTT GGCAA
                    TCCTC CAAAG TCGTT
                      CC TCT
GAM217 LOC152485 3' TCACCCAAACACTCCTTC 3171
                                          TCT
                    GAAGGAGTGTTT TGG
                    CTTCCTCACAAA ACT
                        CCC
GAM217 LOC159148 5' TGCCAAAAAAACAGGTACTCTT 3397 G C
                     TAGAAG AGT GTTTT TTGGCA
        CTA
                    ATCTTC TCA CAAAA AACCGT
                      _ TGGA A
GAM217 LOC159989 3' GCCAAGAAAAAAGCTCT 3238
                                         G
                    GGAGT TTTTCTTGGC
                    TCTCG AAAAGAACCG
                      AAA
GAM217 LOC164584 5' TTGCCAAGAAACAATCT 3250
                                        G
                    GGA TGTTTTCTTGGCAA
                    TCT ACAAAAGAACCGTT
                     Α
GAM218 RAG1 3' CCAGTATTAAATTATCC 745
                                      ACTACT
                    GGATAATTTA
                              ATATTGG
                    CCTATTAAAT TATGACC
```

GG TAATTT ACTA TATTGGC

A A CTA

GAM218 LOC221964 3' GCCAGTAATAGTCAAATTAACC 3628

AAATCAAATAGGTAT CAGT

GAM219 KIAA1789 5' TAACATTATGTGATTCTAAATG 2780 TTTATT TATTTAG CATAATGTTA GTAAATC GTATTACAAT TTAGT 3' AACAAACAAAACTGTTGCTAT 1276 GAM220 NR4A2 TC__ CTA TTC GAAATAGC GTTT TTTGTT CTTTATCG CAAA AAACAA TTGT AAC GAM220 LOC51145 3' GCAAAAACGAGCTCTTCA 1667 ΑT **CTAT** TGAA AGCTCGTTT TTGT ACTT TCGAGCAAA AACG GAM221 HFE 3' GCAGGTGCTTCAGGATA 738 AC TATCCTGA AGCAT TGC ATAGGACT TCGTG ACG __ G GAM221 HFE 3' GCAGGTGCTTCAGGATA AC 2464 TATCCTGA AGCAT TGC ATAGGACT TCGTG ACG GAM221 PKIA 3' CAATGCTGTATGATACTATTT 1334 A CTGA AGATA TATC ACAGCATTG TTTAT ATAG TGTCGTAAC C TA C AAC GAM221 PLAG1 3' GCAATGCTATCCATTGATGT 943 ATATC TG AGCATTGC TGTAG AC TCGTAACG TT CTA GAM221 FLJ20371 3' GCCTATTCAGGATATTAACT 1752 CA_ AG TAATATCCTGAA GC 11 111111111111 11 TC ATTATAGGACTT CG **ATC** Α GAM221 LOC202052 3' GCATCTGTTCAGGACAACATC 3485 AATA CAT GAT TCCTGAACAG TGC CTA AGGACTTGTC ACG

CAAC

GAM222 EIF2C1 3' TGCCCTCAAGCTTATACTA 1413

T__

TAGTATAG GTTT AG GCA

CGTC A A

```
СС
GAM222 FMR2 3' CTCTTAAAAAGATGCTATGC 888
                                          G
                    GTATAGCGTC TTTAAGAG
                    CGTATCGTAG AAATTCTC
                        AA
GAM222 FLJ13612 3' CTCTTAAATACTGTACTA 2146
                                         CGTC
                    TAGTATAG GTTTAAGAG
                    ATCATGTC TAAATTCTC
GAM223 HPS4
            5' TGTTTGAACTGGAAACTTCAA 1977
                                            AA T
                    TTGAAGTTTCCA TTT GATA
                    AACTTCAAAGGT AAG TTGT
                         C T
GAM223 TEKT1 5' GGAATTTGGAAACCTCAA 2359
                    TTGA GTTTCCAAATTTT
                    AACT CAAAGGTTTAAGG
                      С
GAM223 LOC145783 3' CGGAATTTGGAAACCCCAG 3082
                                          AA
                    TTG GTTTCCAAATTTTG
                     GAC CAAAGGTTTAAGGC
                      CC
GAM223 LOC154321 3' TATTTAGCTTTGGAAACTT 3190
                                            TT
                    AAGTTTCCAAA TT GATA
                    TTCAAAGGTTT GA TTAT
                         СТ
GAM224 FEZ1
            3' AGGATATGTCCACATAAGAA 1993
                                         ATTTT
                    TTCTT TGT GGCATATCCT
                    AAGAA ACA CTGTATAGGA
                      T C
GAM224 GOLGA4 5' AGGATATTGAACACAAAGAA 2554
                                           A TGGC
                    TTCTTTGT TTT ATATCCT
                    AAGAAACA AAG TATAGGA
                        C T_
GAM224 HAS3
            3' AGGACAAATCTAAAATGCAAAG 1199
                                              CATA
        AA
                     TTCTTTGTATTTTGG TCCT
                     AAGAAACGTAAAATC AGGA
                          TAAAC
GAM224 JUN
           3' AGGATATTTAAGAAAATACAA 914
                                          GGC__
                    TTGTATTTT ATATCCT
```

ATCATATT CGAA TC CGT

```
GAATT
GAM224 MADH9 3' ATGTGTAAATACATAGAA 1260 T
                                          TG
                    TTCT TGTATTT GCATAT
                    AAGA ACATAAA TGTGTA
                     Т
GAM224 NR2C2 3' AGGACCGTTCACATACAAAGAA 1007
                                        TTT ATA
                    TTCTTTGTAT GGC TCCT
                    AAGAAACATA TTG AGGA
                        CAC CC
GAM224 AP1S3 3' AGGACTATAGAAATGCAAAGAA 3010
                                            GGCATA
                    TTCTTTGTATTTT TCCT
                    AAGAAACGTAAAG AGGA
                         ATATC_
GAM224 ARHE 3' ATATGCCAAAAAATGAGAG 1190
                                        TGTA
                    TTCTT TTTTGGCATAT
                    GAGAG AAAACCGTATA
                      TAA
GAM224 FLJ11000 3' AGGACACATGGGGTACAAAGA 1812 TT GCATA
                    TCTTTGTATT G TCCT
                    AGAAACATGG T AGGA
                        GG ACAC
GAM224 FLJ11996 5' ATAGATCTAAATACAAAGGA 2120
                                           T CA
                    TTCTTTGTATTT GG TAT
                    AGGAAACATAAA CT ATA
                        T AG
                                         T GGCATA
GAM224 GADD45A 3' AGGAACAAAAATTACAAAGAA 869
                    TTCTTTGTA TTT TCCT
                    AAGAAACAT AAA
                                  AGGA
                       T AACA
GAM224 HNRPA3 3' AGGATATGATGGTTACAATGAA 1244 T TTTTGG
                    TTC TTGTA CATATCCT
                    GTATAGGA
                    AAG AACAT
                     T TGGTA
GAM224 KIAA0179 3' AGAATATGTCACATAAAGAA 2704
                                          ATTT
                                                С
                    TTCTTTGT TGGCATAT CT
                    AAGAAATA ACTGTATA GA
                       C___
GAM224 KIAA1831 3' GGAAAAAAATACAAAGAA
                                 2667
                                           GGCATA
                    TTCTTTGTATTTT
                                 TCC
```

III

AACATAAAA TATAGGA

```
AAGAAACATAAAA
                                   AGG
                         AA__
GAM224 KLHL4 3' AGGATATGTGTGCTATATAAA 1880
                                          TTTG
                    TTTGTAT GCATATCCT
                    AAATATA TGTATAGGA
                       TCGTG
GAM224 PANX3 3' AGGATAGTATAAATAAAAAGAA 2350
                                         G TG A
                    TTCTTT TATTT GC TATCCT
                    AAGAAA ATAAA TG ATAGGA
                       A TA _
GAM224 TRAF3 5' ATATGCTAAACAAAGAA 2541
                                        GTAT
                    TTCTTT TTTGGCATAT
                    AAGAAA AAATCGTATA
                       AC
GAM224 TRAF3 3' ATATGCTAAACAAAGAA 1008
                                        GTAT
                    TTCTTT TTTGGCATAT
                    AAGAAA AAATCGTATA
                       AC__
GAM224 ZFD25 3' GATTGTACAAATACAAGGAA 1672
                                          TG T
                    TTCTTTGTATTT GCA ATC
                    AAGGAACATAAA TGT TAG
GAM224 ZID
         3' ATATGCCAAAAGGAA 1315 TTGTA
                    TTCT TTTTGGCATAT
                    AAGG AAAACCGTATA
GAM224 LOC151742 5' AGGACTACGAGAAAGACAAAGA 2477
                                             A GGCATA
        Α
                     TTCTTTGT TTTT
                                  TCCT
                    AAGAAACA AAAG
                                   AGGA
                       G AGCATC
GAM224 LOC152179 3' TGCTTCAAAATCAAAGAA
                                   3352
                                          Т
                    TTCTTTG ATTTTG GCA
                    AAGAAAC TAAAAC CGT
                          TT
GAM224 LOC51266 3' GATATGTATGAATGCAAA 1691
                                          TG
                    TTTGTATTT GCATATC
                    AAACGTAAG TGTATAG
                        TΑ
GAM224 LOC90317 5' AGGATACATACTACAGAGAA 2629
                                            TTT GCA
```

TTCTTTGTA TG TATCCT

```
AAGAGACAT AC ATAGGA
                        CAT ___
GAM224 LOC90470 3' AGAATATGCTCAATACAAAG 2645
                                           TT C
                     CTTTGTATT GGCATAT CT
                     GAAACATAA TCGTATA GA
                        С
                            Α
GAM224 LOC90786 5' ATATGCCAAAATTGAGA
                                  2678
                                         TGT
                     TCTT ATTTTGGCATAT
                     AGAG TAAAACCGTATA
                      Т
GAM225 ATRX
            3' ATCACGTCAGTAAAATACTA 751
                                          TAC
                     TAGTATTTT CT ACGT GGT
                     ATCATAAAA GA TGCA CTA
                        T C
                                          TAC
GAM225 ATRX 3' ATCACGTCAGTAAAATACTA 2431
                     TAGTATTTT CT ACGT GGT
                     ATCATAAAA GA TGCA CTA
                        TC_
GAM225 D10S170 3' ATACCATTAGAAAATACTA 1211
                                           T CGTC
                     TAGTATTTT CTAA GGTAT
                     ATCATAAAA GATT CCATA
                        _ A__
GAM225 RAB27A 3' ACTGTAATTAGAAAAATAC 1128
                                            CGT
                     GTATTTTTCTAA CGGT
                     CATAAAAAGATT GTCA
                         AAT
                                            A GT G
GAM225 CYLD 3' AATAGTGGTCAGAAAAATACT 1616
                     AGTATTTTCT AC CG TATT
                     TCATAAAAAGA TG GT ATAA
                         C __ G
GAM225 LOC145945 5' ATTTATGGTGAGAAAAATAC 3279
                                             AA_ CG
                     GTATTTTTCT CGT GT
                     CATAAAAAGA GTA TA
                         GTG TT
GAM225 LOC200273 3' ACCGACGTCAAAAAGTCTG 2895
                                          Т
                                             CTA
                     TAG ATTTTT ACGTCGGT
                     GTC TGAAAA TGCAGCCA
                       AC_
GAM225 LOC220758 3' GCGATTAGAAAAACACTA 3497
                                          Α
                     TAGT TTTTTCTAA CGT
```

```
ATCA AAAAAGATT GCG
                       C
                           Α
GAM226 KNSL1 3' TTAGTGGTTATTTCTAAAAT 1123
                     ATTTTAGAAATAAC ATTAG
                     TAAAATCTTTATTG TGATT
                           G
GAM226 PLAC1 3' TGAAGATGCTATTTCTAGAATT 1960
                                               A AG
                     AATTTTAGAAATA CATT CG
                     TTAAGATCTTTAT GTAG GT
                           C AA
GAM226 SCP2
             3' CTAATGTTATTTCTTAAAATT 977
                     AATTTTA GAAATAACATTAG
                     TTAAAAT CTTTATTGTAATC
GAM226 STIM1 3' GTGTTATTTCATAAAATT 2558
                     AATTTTA GAAATAACAT
                     TTAAAAT CTTTATTGTG
                        Α
GAM226 CORTBP2 3' AATGTTACTTCTAAAATT 2334
                                            Α
                     AATTTTAGAA TAACATT
                     TTAAAATCTT ATTGTAA
GAM226 VAMP3 3' CTACTGTTATCTCTAAAATT 1156
                                               Τ
                     AATTTTAGA ATAACA TAG
                     TTAAAATCT TATTGT ATC
                         С
                            С
                                               T C
GAM226 LOC90148 3' TCCTTGTGTTATTTCTAAAA 2603
                     TTTTAGAAATAACAT AG GA
                     AAAATCTTTATTGTG TC CT
                           Τ _
GAM227 AK2
            3' TGAAAAAGGAAGTTGGTTATGC 1449
                                           TACA
                                                      С
         CA
                       TGGC AACT TTTCCTTTT CA
                     ACCG TTGG GAAGGAAAA GT
                       TA__
                           TT
GAM227 CRTAP
             3' GGAAAAGGAAGAAAGCCA 1291
                                           ACAAAC
                     TGGCT
                             TTTTCCTTTTCC
                     |||||
                         AGAAGGAAAAGG
                     ACCGA
                       A
GAM227 CXorf6 5' TGGAAAAGTCGGCTTGTAATCA 1218
                                           GC
                                             A TTTC
                     TG TACAA CT CTTTTCCA
```

```
TA C CT
GAM227 EPHB2 3' TGGAAAAGAAAACTGGTGCCA 1113
                                          T AAAC C
                     TGGC AC TTTTC TTTTCCA
                     ACCG TG AAAAG AAAAGGT
                       _ GTCA _
            3' TGGAAAAATTTTAATTTGTAGC 1717
GAM227 FZD3
                                            CTTTTCC
         CA
                      TGGCTACAAA TTTTCCA
                     ACCGATGTTT
                                 AAAAGGT
                         AATTTTA
GAM227 HMGA2 3' GAAAAAAAAGCTTGTGGCCA 1033
                                             A CC
                     TGGCTACAA CTTTT TTTTC
                     ACCGGTGTT GAAAA AAAAG
                         C A
                                           A AACTT C
GAM227 SLC2A4 3' TGGAAAAGAATCCCTGCAGCC 794
                     GGCT CA TTC TTTTCCA
                     CCGA GT AAG AAAAGGT
                       C CCCT_ _
GAM227 ATP10B 3' AGGGAAAAGTTATAACCA 2654
                                         C CA
                     TGG TA AACTTTTCCTT
                     ACC AT TTGAAAAGGGA
                      ΑА
GAM227 BCCIP 3' GAAAAGGAATAGTCA 2369
                                        CAAACTT
                     TGGCTA
                            TTCCTTTTC
                     ACTGAT
                             AAGGAAAAG
                                          TA_ _
GAM227 C20orf30 3' GGAAAAGTGTTGCCTGCCA 1478
                     TGGC CAA ACTTTTCC
                     ACCG GTT TGAAAAGG
                       TCC G
GAM227 DKFZP564O043 3' GGAAGGGAAAAATTTATAGCTA 3565
                                              СС
                     TGGCTA AAA TTTTCCTTTTC
                     ATCGAT TTT AAAAGGGAAGG
                       A
GAM227 FLJ11710 3' TGGAAAGGGGAATCTATGCCA 2097
                                            TACAAACT
                     TGGC
                            TTTCCTTTTCCA
                          \parallel \parallel \parallel
                            AAGGGGAAAGGT
                     ACCG
                       TATCT_
GAM227 JDD1
            3' TGGAAAGGCAAGTTTGTACCCA 2653
                                          С
                                               TTC
                     TGG TACAAACTT CTTTTCCA
```

AC ATGTT GG GAAAAGGT

```
ACC ATGTTTGAA GGAAAGGT
                      С
                           C__
GAM227 KIAA0265 3' GAAAAGGAAAAGGAATAATCA 2871 GC CAAA
                     TG TA CTTTTCCTTTTC
                     AC AT GAAAAGGAAAAG
                      TA AAG
GAM227 KIAA0663 3' GGAAAAGGAAGAAAGCCA 1561
                                           ACAAAC
                     TGGCT TTTTCCTTTTCC
                     ACCGA AGAAGGAAAAGG
                       Α
GAM227 KIAA1010 3' TGGAAAGGAGAAACTTGCAGTC 2934
                                             A AC
         Α
                      TGGCT CAA TTTTCCTTT CCA
                     ACTGA GTT AAGAGGAAA GGT
                       C CA
GAM227 KIAA1576 3' GGTCAAAAGTTTGAGCCA 2734
                     TGGCT CAAACTTTT CC
                     ACCGA GTTTGAAAA GG
                            CT
GAM227 KIAA1634 3' TGAAAAAGGAAAGAAAGTAACC 2658
                                            C AAAC
                                                      C
                      TGG TAC TTTTCCTTTT CA
                     ACC ATG GAAAGGAAAA GT
                      A AAA_
GAM227 KIAA1798 3' GAAAGTAAGTTTGTAGC 2575
                                            TTC
                     GCTACAAACTT CTTTT
                     CGATGTTTGAA GAAAG
                          T_
GAM227 KNSL7 3' AAAAATAAAAGCCTGTAGCTA 1904
                                            AA CC
                     TGGCTACA CTTTT TTTT
                     ATCGATGT GAAAA AAAA
                        CC TA
GAM227 LALP1 3' GAAATGAAATTTGTAGC 1916
                                          CT CT
                     GCTACAAA TTTC TTTC
                     11111111 1111 1111
                     CGATGTTT AAAG AAAG
                        __ T_
GAM227 MGC2488 3' GAAAAGGAAGCATGTAGC 2044
                                           AACT
                     GCTACA TTTCCTTTTC
                     CGATGT GAAGGAAAAG
                        AC__
                                          T AAA __
GAM227 nexilin 3' AAAAGGAAACCAGGAGTGCCA 2484
                     TGGC AC CT TTTCCTTTT
```

```
_ AG_ CC
GAM227 NKX2B 3' TGGAAAAGAAACCCTGTAGGC 934 G AAC C
        Α
                     TG CTACA TTTTC TTTTCCA
                    AC GATGT AAAAG AAAAGGT
                     G CCC _
GAM227 STX18
            3' TGAAAAAGGAAACAGTGCACAC 1715
                                         CTACAA _
                                                    С
        CA
                     TGG ACT TTTCCTTTT CA
                    ACC TGA AAAGGAAAA GT
                     ACACG C
GAM227 ZNF271 5' AGTAAAAGTTTTAGCCA 3670
                    TGGCTA AAACTTTT CT
                    ACCGAT TTTGAAAA GA
                          Т
GAM227 LOC115207 3' GAAAGTTGGAAGTTTGTACCA 2440 C
                                               CC
                    TGG TACAAACTTTT TTTTC
                    ACC ATGTTTGAAGG GAAAG
                          TT
GAM227 LOC133482 5' AAAAGGAAAAAAGCCA
                                        ACAAAC
                                  3014
                    TGGCT TTTTCCTTTT
                    ACCGA AAAAGGAAAA
                      Α
GAM227 LOC147080 5' TGGAAATCGCCAAATTTGTAGC 3290
                                            CTTTTCCT
        CA
                     TGGCTACAAA TTTCCA
                    ACCGATGTTT AAAGGT
                        AAACCGCT
GAM227 LOC147990 3' GAAAAGGAAATAAAAAAGCCA 3295
                                           ACAAACT
                    TGGCT TTTCCTTTTC
                    ACCGA AAAGGAAAAG
                      AAAAT
GAM227 LOC149529 3' AAAAGGCAAAAGTTTGCAGC 3134
                                          Α
                    GCT CAAACTTTT CCTTTT
                    CGA GTTTGAAAA GGAAAA
                          С
GAM227 LOC158130 3' AAAGGAAAATTCTAGCCA 2847
                                          C AC
                    TGGCTA AA TTTTCCTTT
                    ACCGAT TT AAAAGGAAA
                       C
                                          CTTT _
GAM227 LOC196478 5' GAAAATGGATTTGTAGC
                                  3413
```

GCTACAAA TCC TTTTC

ACCG TG GA AAAGGAAAA

```
CGATGTTT AGG AAAAG
                       __ T
GAM227 LOC219894 3' AGAAGAAAAGTTTGAAACCA 3595 CTA C
                    TGG CAAACTTTTC TTTT
                    ACC GTTTGAAAAG AAGA
                     AAA
GAM227 LOC219988 5' GAAAGCACAAAATTTGTAGC 3535
                                        C TC
                    GCTACAAA TTT CTTTT
                    CGATGTTT AAA GAAAG
                       A CAC
GAM227 LOC221272 3' GAAAAGGAAAAGTTTACCTGC 3613
                                         TAC
                    GC AAACTTTTCCTTTTC
                    CG TTTGAAAAGGAAAAG
                     TCCA
GAM227 LOC221272 3' GAAAAGGAAAGTAGCTA 3614
                                        AAACT
                    TGGCTAC TTTCCTTTTC
                    ATCGATG AAAGGAAAAG
GAM227 LOC245771 5' TGAAAAAGGAGAGATCATCAGC 3584
                                          ACAAAC
                                                     C
                     TGGCT TTTTCCTTTT CA
        CA
                    ACCGA GAGAGGAAAA GT
                      CTACTA
GAM227 LOC253019 3' GGAAAAGGAAGAAAGCCA 3673
                                         ACAAAC
                    TGGCT TTTTCCTTTTCC
                    ACCGA AGAAGGAAAAGG
                      Α
GAM227 LOC253975 3' GGAAAAGGAAGAAAGCCA 3687
                                         ACAAAC
                    TGGCT TTTTCCTTTTCC
                    ACCGA AGAAGGAAAAGG
                      Α
GAM227 LOC254873 3' TGGAAAAGAATCCCTGCAGCC 3659
                                          A AACTT C
                    GGCT CA TTC TTTTCCA
                    CCGA GT AAG AAAAGGT
                     C CCCT_ _
GAM227 LOC51634 3' AAAATGAAACCCTGTAGCCA 1655
                                          AACT C
                    TGGCTACA TTTC TTTT
                    ACCGATGT AAAG AAAA
                       CCC_ T
GAM228 ABCE1 3' AAATATACAGAATGGAA
                                2532
                                       GCTG
```

TTCCG TTGTATATTT

```
AA
GAM228 WWP1 3' ATTTAAATACCCCAGCCAAGAA 1345 C_ TTGTA
                    TTTC GGCTG TATTTAAAT
        Α
                    AAAG CCGAC ATAAATTTA
                     AA CCC
GAM229 GDF8
            3' ATGAAGAATAAACTGATGCTA 1197 C GAG C
                    TAGCATCG TTT ATTCT CAT
                    ATCGTAGT AAA TAAGA GTA
GAM229 DIO2
           3' TGGAGAGGAAGAACGCTA 773 ATCG GAGA
                    TAGC CTTT TTCTCCA
                    ATCG GAAG GAGAGGT
                     CAAA _
GAM229 DIO2 3' TGGAGAGGAAGAACGCTA 1454 ATCG GAGA
                    TAGC CTTT TTCTCCA
                    ATCG GAAG GAGAGGT
                     CAAA _
GAM229 FLJ21007 5' ATGAAGAATCTCAGGCTGC 2167
                                       TC T C
                    GCA GCTT GAGATTCT CAT
                    CGT CGGA CTCTAAGA GTA
GAM229 KIAA0478 3' ATGGAGAAAAAGCAGGGATGCT 1573
                                           ___ GAGA
        Α
                    TAGCATC GCTTT TTCTCCAT
                    ATCGTAG CGAAA AAGAGGTA
                      GGA
GAM229 KIAA0513 3' GATCTCAAAACAGTGCTA 1535
                                        CGC
                    TAGCAT TTTGAGATT
                    ATCGTG AAACTCTAG
                      ACA
GAM229 KIAA1323 5' ATGGAGAATGGGCTGAAGCGAT 2647
                                          G ___
        GCT
                      AGCATCGCTTT AG ATTCTCCAT
                    TCGTAGCGAAG TC TAAGAGGTA
                        _ GGG
GAM229 P450RAI-2 3' GAGAATCTTGGGGATGCTG 1888
                                         G TT
                    TAGCATC CT GAGATTCTC
                    GTCGTAG GG TTCTAAGAG
                       \mathsf{G}_{-}
GAM229 XYLT1 3' GAAACTCACAAAGCAATGCT 3089
                                        C _ A
```

AGCAT GCTT TGAG TTC

11111 1111 1111 111

AAGGT GACATATAAA

```
TCGTA CGAA ACTC AAG
                     A AC A
GAM229 LOC143282 3' ATGGAGAATCTCTGGGATAGC 3055 G TT
                   GC ATC CT GAGATTCTCCAT
                   CG TAG GG CTCTAAGAGGTA
                    A _ T_
                                        C TT GA
GAM229 LOC200132 3' ATGGAGAAAATTAGCAATGCTG 3438
                   TAGCAT GCT GA TTCTCCAT
                   GTCGTA CGA TT AAGAGGTA
                      A AA
GAM230 FGFR1 5' CCGCAGCGCGCGGAGGAA 759
                                        GAGA ACA A
                   TTCCTCTG TG CT CGG
                   AAGGAGGC GC GA GCC
                       GC C
GAM230 FGFR1 5' CCGCAGCGCGCGGAGGAA 1647
                                       GAGA ACA A
                   TTCCTCTG TG CT CGG
                   AAGGAGGC GC GA GCC
                      ____ GC_ C
GAM230 FGFR1 5' CCGCAGCGCGCGGAGGAA 2031
                                        GAGA ACA A
                   TTCCTCTG TG CT CGG
                   AAGGAGGC GC GA GCC
                       ____ GC_ C
GAM230 FGFR1 5' CCGCAGCGCGCGGAGGAA 2033
                                         GAGA ACA A
                   TTCCTCTG TG CT CGG
                   AAGGAGGC GC GA GCC
                         _ GC_ C
GAM230 FGFR1 5' CCGCAGCGCGCGGAGGAA 2035
                                       GAGA ACA A
                   TTCCTCTG TG CT CGG
                   AAGGAGGC GC GA GCC
                      ____ GC_ C
GAM230 FGFR1 5' CCGCAGCGCGCGGAGGAA 2036
                                       GAGA ACA A
                   TTCCTCTG TG CT CGG
                   AAGGAGGC GC GA GCC
                       ___ GC_ C
GAM230 ITGB3 3' CCTCTCATTCCAGAGGAA 718
                                       A CACTAC
```

__ CT____
GAM230 PCSK2 3' GCCATGCAATTCATCCCAGAGG 940 A CACTAC_
AA TTCCTCTGG GATGA GGC
||||||||| ||||

TTCCTCTGGAG TGA

AAGGAGACCTT ACT

GG

CC

```
AAGGAGACC CTACT
                                     CCG
                        _ TAACGTA
GAM230 STK24 3' CCATAGTGCACATATTCCAGG 1038
                                          _ A_ C
                    TCTGGAG ATG CACTA GG
                    GGACCTT TAC GTGAT CC
                       A AC A
GAM230 TIMP3 5' CCTGCTCTCCAGAG
                                733
                                        T _ CTAC
                    CTCTGGAGA GA CA GG
                    GAGACCTCT CT GT CC
                        _ C __
GAM230 AF038169 3' GCCAGGGGGCATCTCCAAAGGA 1440
                                                ACA AC
        Α
                     TTCCT TGGAGATG CT GGC
                    AAGGA ACCTCTAC GG CCG
                          GG GA
GAM230 CRTAM 3' GCCGCAGTGTCACCTCAGTGGA 1883
                                           TGA
                    TCC CTG AG TGACACT CGGC
                    AGG GAC TC ACTGTGA GCCG
                     T _ C C
                                             G CA AC
GAM230 DKFZP564J0863 3' GCCACAGGTTCATATCCAGAGG 2815
                     TTCCTCTGGA ATGA CT GGC
                    AAGGAGACCT TACT GA CCG
                        A TG CA
                                             T CA_ C
GAM230 FLJ14297 5' GCCATAGAATTCTCTCCAGAAG 2108 C
                      TTC TCTGGAGA GA CTA GGC
        AG
                    GAG AGACCTCT CT GAT CCG
                         _ TAA A
GAM230 FLJ20508 3' GCTGTTACCATCTCAGAGGAA 1757
                                           G ACACT
                    TTCCTCTG AGATG ACGGC
                    AAGGAGAC TCTAC TGTCG
                       _ CAT__
GAM230 FLJ23462 3' GCTTCTGTCATCTCCAGAG 2096
                                             CTAC
                    CTCTGGAGATGACA GGC
                    GAGACCTCTACTGT TCG
                          CT_
GAM230 LOC126167 3' CCAAGAATTTATCTCCAAAGGA 2998
                                           С
                                                CACTAC
        Α
                     TTCCT TGGAGATGA
                                    GG
                    AAGGA ACCTCTATT
                                    CC
                      Α
                           TAAGAA
GAM230 LOC157247 5' CCACAGTGTCATCCCACAG 3200
                                         C A
                                                AC
                    CT TGG GATGACACT GG
```

```
GA ACC CTACTGTGA CC
                     C _
                           CA
GAM230 LOC161357 5' CCGTAGTGGCTCCAAAG 3240 C ATGA
                    CT TGGAG CACTACGG
                    GA ACCTC GTGATGCC
                     A G
GAM230 LOC201965 3' CCGTAAATTACTTCAGAG 3455
                                           A CAC
                    CTCTGGAG TGA TACGG
                    GAGACTTC ATT ATGCC
                       AA
GAM230 LOC253758 5' GCCGTCTCACCTCCAAAGG 3723
                                          C A CACT
                    CCT TGGAG TGA ACGGC
                    GGA ACCTC ACT TGCCG
                     A C C
                                           G A CTAC
GAM230 LOC91661 3' CCACTGCATCTCAGAGGAA 2438
                    TTCCTCTG AGATG CA GG
                    AAGGAGAC TCTAC GT CC
                       _ _ CA__
GAM231 SPG4 3' AATCTACAGACATTAAACAAT 1595
                                           C TA
                    ATTGTTTAAT GTTT TAGATT
                    TAACAAATTA CAGA ATCTAA
                        _ C_
GAM231 KIAA0672 3' AATCTATAAAACAAACAA 1569
                                         AATC
                    TTGTTT GTTTTATAGATT
                    AACAAA CAAAATATCTAA
GAM231 MGC32104 3' AATCTATAAAGAACTCAAACAA 2495
                                           AATCG
                    TTGTTT TTTTATAGATT
                    AACAAA GAAATATCTAA
                       CTCAA
GAM231 PRO0082 3' AATCTATGGCTTGATTAAAAAT 1851
                                          G
                                              TT
                     TATT TTTAATCG TTATAGATT
                    ATAA AAATTAGT GGTATCTAA
                          TC
GAM232 TRAP1 3' GATGACAGCCCCACCTCC 1678
                                          A A_{-}
                    GGAGGTGG GT TCGTC
                    CCTCCACC CG AGTAG
                        C AC
GAM232 ASAH
            3' TGGTGAACTCCACCTCC 1098
                                          A GT
                    GGAGGTGGAGT TC CA
```

CCTCCACCTCA AG GT _ TG GAM232 CNNM1 3' ATTATTGACTTCACCACACCCC 1913 A GA ATC GG GGTG GT GTCAATAAT CC CCAC CA CAGTTATTA _ AC CTT GAM232 Rab11-FIP2 3' ATTATGCATTACTCCACATCC 1582 G TC CA GGA GTGGAGTA GT ATAAT CCT CACCTCAT CG TATTA TA GAM232 RNF38 3' ATTGAATACTCCATCCC 2009 A CG GG GGTGGAGTAT TCAAT CC CTACCTCATA AGTTA GAM232 LOC152283 3' TGGTCGACATCCCACCTCC 3357 AG A GGAGGTGG T TCG TCA CCTCCACC A AGC GGT CT C T GAM232 LOC160484 5' TATTGGCCTGACAGTCCACCTC 3239 ATC С GGAGGTGGA GT GTCAATA CCTCCACCT CA CGGTTAT GA GTC GAM232 LOC90119 3' ATTATTGACAACACCAT 2600 A ATC GTGG GT GTCAATAAT

TACC CA CAGTTATTA

A A__

GAM233 MTMR2 3' GATCAAAATCATTTGATA 1664 Τ TATCAGATGATTTTG ATT

ATAGTTTACTAAAAC TAG

GAM233 PCDHGA8 5' GATCTAATCTGATCATTTAATA 2227 С TTGT TAT AGATGATT ATTAGATC

ATA TTTACTAG TAATCTAG

Α TC__

GAM233 PCDHGA8 5' GATCTAATCTGATCATTTAATA 1460 С TTGT TAT AGATGATT ATTAGATC

ATA TTTACTAG TAATCTAG

TC__

GAM233 PTGES 3' CTAATGATCATCTGA 1162 TTGT TCAGATGATT ATTAG

AGTCTACTAG TAATC

GAM233 SOX11 3' AATCATAATCATCTGATA 991 ТТ TATCAGATGATT TG ATT ATAGTCTACTAA AC TAA Τ_ GAM234 C6 5' TGGGAGGACAAAGGCAGT 3656 Α Α_ ACT CCTTTGTC CCCA TGA GGAAACAG GGGT С GA GAM234 CGB 5' ATAAAGCCAGGTACACGAGGCA 770 A _ C CAA G CT CCTT TGT ACC CTTTAT GA GGAG ACA TGG GAAATA C C ACC GAM234 CUL3 3' AGTTGGGTAACAAAATGG 1040 CC С CTA TTTGT ACCCAACT **GGT AAACA TGGGTTGA** AA A GAM234 GRINL1A 3' ATAAAGTTACACAAAGGTAGT 2863 CACCC ACTACCTTTGT AACTTTAT TGATGGAAACA TTGAAATA CA GAM234 PRKG1 3' AGTTGAGAGACAAAGGTA 1283 ACC TACCTTTGTC CAACT ATGGAAACAG GTTGA AGA GAM234 WHSC1 3' AAAGTTGGGTTGATAGG TT _ 2409 **CCT GTCA CCCAACTTT GGA TAGT GGGTTGAAA** __ T GAM234 CGB5 5' ATAAAGCCAGGTACACGAGGCA 2311 A _ C CAA G CT CCTT TGT ACC CTTTAT GA GGAG ACA TGG GAAATA C C ACC GAM234 DDX33 3' ATAAAATTGGGTTCATAAAG 1895 C_ С CTTTGT ACCCAA TTTAT GAAATA TGGGTT AAATA CT A GAM234 FLJ20296 5' TAAAGCTGGTTAAGGTGGT 1749 TGTCAC A ACTACCTT CCA CTTTA

```
TGGTGGAA GGT GAAAT
                        TT C
GAM234 IRO039700 5' GTGGGGCAGACAAAGGCAG 1858
                                          Α
                                            A A
                     CT CCTTTGTC CCC AC
                     GA GGAAACAG GGG TG
                      C
                          AC G
GAM234 KIAA0594 3' ATAAAATTAGGTGACAAGGGT 2706
                                              CC
                     ACCTTTGTCACC AA TTTAT
                     TGGGAACAGTGG TT AAATA
                         A
GAM234 MAL2
            3' AGTTGAATGACAAAGCAGT 2343
                                        AC
                                             CC
                     ACT CTTTGTCA CAACT
                     TGA GAAACAGT GTTGA
                      С
                           AA
GAM234 LOC1456223' AAAGTTGTGTAAAGTGACGAA 3080
                                             С
                     TTTGTCAC
                              CAACTTT
                          AAGCAGTG
                               GTTGAAA
                        AAATGT
GAM234 LOC152982 3' ATAAAGTTACACAAAGGTAGT 3176
                                              CACCC
                     ACTACCTTTGT AACTTTAT
                     TGATGGAAACA TTGAAATA
                         CA
GAM234 LOC256174 5' ATAAAGTTGGATGGAAAGG 3742
                                           G C
                     CCTTT TCA CCAACTTTAT
                     GGAAA GGT GGTTGAAATA
                                          А А
GAM235 CALCR 3' GAGGGGAAAAAATTAACTGCTC 854
                                                 G
        CA
                      TG AGTA TTAATTTTT CT CCTC
                     AC TCGT AATTAAAAA GG GGAG
                     CC
                            Α_
GAM235 IL1F9 3' GAAGAAGCAATTACTTCA
                                1886
                                          AA
                     TGAAGTAATT TTTTTC
                     ACTTCATTAA AAGAAG
                         CG
GAM235 LTA
           3' AGGCAAAAAAATTAAATTATTT 757
                                             С
                     AAGTAATT AATTTTT TGCCT
                     TTTATTAA TTAAAAA ACGGA
                        Α
                           Α
GAM235 PPP1R12B 3' AGGCAGGGTCTAACCCTTCA 2229
                                            TAA ATTT
                     TGAAG TTA TTCTGCCT
```

```
ACTTC AAT GGGACGGA
                      CC_ CT__
GAM235 TFF3
           3' GCAGAAAAAATACATTTCA 2661
                                       AAT A
                    TGAAGT TA TTTTTCTGC
                    ACTTTA AT AAAAAGACG
                      C A
GAM235 ZHX1
            3' AGGAGAATCAATTCTTCA 1366
                                       T A
                    TGAAG AATT ATTTTTCT
                    ACTTC TTAA TAAGAGGA
                      С
GAM235 DKFZP434C1715 3' AGGCAGAAGGATCACTT
                                      3371
                                            AATTA
                    AAGT ATTTTTCTGCCT
                    TTCA TAGGAAGACGGA
                      C___
GAM235 FLJ21075 3' GAGGCAGAAAATTCCACTT 2130
                                        AATTAAT
                    AAGT TTTTCTGCCTC
                        TTCA AAAAGACGGAG
                      CCTT
GAM235 FLJ23556 3' AGGCAGAAGGATCACTT 2101
                                        AATTA
                    AAGT ATTTTTCTGCCT
                    TTCA TAGGAAGACGGA
                      С
GAM235 HSD17B7 3' AGGCAGAAGGATCACTT 1682
                                        AATTA
                    AAGT ATTTTTCTGCCT
                    TTCA TAGGAAGACGGA
                      С
GAM235 IDN3 3' AGGCAGAAAAACTTGAAATAC 2415
                                        A_ _
                    GTA TTAA TTTTTCTGCCT
                    CAT AGTT AAAAAGACGGA
                     AA C
GAM235 KIAA1456 3' AGGCAGAAGGATCACTT 2772
                                        AATTA
                    AAGT ATTTTTCTGCCT
                    TTCA TAGGAAGACGGA
                      C_{-}
GAM235 NXPH3 3' AGACAGAAATGTTACTTC 2727
                                         TAATT C
                    GAAGTAAT TTTCTG CT
                    CTTCATTG AAAGAC GA
                       T___
                             Α
GAM235 PNPASE 3' GAGGCAGAAGAATCACTTCA 2901
                                          AATTA
                    TGAAGT ATTTTTCTGCCTC
```

```
ACTTCA TAAGAAGACGGAG
                      С
GAM235 SPRY4 3' AGGCAGAAGAATCACTT 2176 AATTA
                    AAGT ATTTTTCTGCCT
                    TTCA TAAGAAGACGGA
                      С
GAM235 ZNF33A 3' AGGCAGAAGAATCACTT 3519
                                       AATTA
                    AAGT ATTTTTCTGCCT
                    TTCA TAAGAAGACGGA
                     С
GAM235 LOC126282 3' AGGCAGGATAATCACTT 2999
                                        A ATTT
                    AAGT ATTA TTCTGCCT
                    TTCA TAAT AGGACGGA
                      С
GAM235 LOC144583 3' AGGCAGGATAATCACTT 3068 A ATTT
                    AAGT ATTA TTCTGCCT
                    TTCA TAAT AGGACGGA
                      C __
                                        AATTTT
GAM235 LOC145231 3' AGGCAGGCGAATTACTTCA 3273
                    TGAAGTAATT TCTGCCT
                    ACTTCATTAA GGACGGA
                        GC
GAM235 LOC147837 3' AGGCAGGATAATCACTT 3113 A ATTT
                    AAGT ATTA TTCTGCCT
                    TTCA TAAT AGGACGGA
                      С
                                            TTT C
GAM235 LOC149910 3' GAGACAGAATCTTTAGTTACTT 3141
        CA
                     TGAAGTAATTAA TTCTG CTC
                    ACTTCATTGATT AAGAC GAG
                         TCT A
GAM235 LOC158160 3' AGGCAGAAGGATCACTT 2967
                                        AATTA
                    AAGT ATTTTTCTGCCT
                    TTCA TAGGAAGACGGA
                      \mathsf{C}_{-}
GAM235 LOC158292 5' AGGCAGAAGAATCACTT 3385
                                        AATTA
                    AAGT ATTTTTCTGCCT
                    TTCA TAAGAAGACGGA
                      \mathsf{C}_{-}
GAM235 LOC162333 5' GAAGCAGAAGATACTACTTTA 3401 ATTAAT
                    TGAAGTA TTTTCTGC TC
```

```
ATTTCAT AGAAGACG AG
                       CAT___
                               Α
GAM235 LOC200057 5' GAAGCAGAAAGAGGTTACTT 3437
                                            AA
                                                  С
                    AAGTAATT TTTTTCTGC TC
                    TTCATTGG AGAAAGACG AG
GAM235 LOC202018 3' GCTTTAAAACTAATTACTTCA 3460
                                             A TCT
                    TGAAGTAATTA TTTT GC
                     ACTTCATTAAT AAAA CG
                         C TTT
GAM235 LOC219392 5' GCAGAGGGAACCAGCTTCA 3511
                                           AATTAA
                    TGAAGT TTTTTCTGC
                    ACTTCG
                           AGGGAGACG
                       ACCA
GAM236 TACC1 3' TAATTGGTAGCCATCTCATG 1285
                    CGTGA GTGGT ATCAATTA
                    GTACT TACCG TGGTTAAT
                       C A
GAM237 EIF4G2 3' AAGCAGAGGCAGTCTATTG 827
                                        T GTAAG
                     CAAT AGAC TTCTGCTT
                     GTTA TCTG GAGACGAA
                      _ ACG__
GAM237 PEX12 3' AAGCAAAATACTAATCTAATTG 727
                                            CGTAA C
                      TACAATTAGA GTT TGCTT
        TG
                     GTGTTAATCT TAA ACGAA
                        AATCA A
GAM237 LOC1301623' AAGCAGAACAGATACCTAATT 3009
                                            AC AA
                    AATTAG GT GTTCTGCTT
                     TTAATC TA CAAGACGAA
                       CA GA
GAM237 LOC152573 3' AAGCAAAGAAAAATACCTAATT 3172
                                             AC AG_ _
        GTA
                      TACAATTAG GTA TTCT GCTT
                     ATGTTAATC CAT AAGA CGAA
                        __ AAA AA
GAM238 FACL2 3' AGAGTACATGTATTATAT 1942
                                          TTT A
                    ATGTAATACA TG ACTCT
                     TATATTATGT AC TGAGA
GAM238 PTER
            3' AGTCAAAATATATTACAT 2154
                                         С
                                            Α
                    ATGTAATA ATTTTGA CT
```

```
TACATTAT TAAAACT GA
```

Α GAM238 ATP6V1G1 3' AGAATTCAAGAACTTGTTACAT 1163 С CA **GTA** TACATGTAATA TTTTGAA TCT ATGTACATTGT AGAACTT AGA TCA Α GAM238 GFR 3' AGATGCAAATGTATTACTGTA 1423 Т T AAC TACA GTAATACATTT G TCT ATGT CATTATGTAAA C AGA GT GAM238 KIAA0349 3' TTTGGAATGTATCATATGTA 3562 TG TACATGT ATACATTT AA ATGTATA TATGTAAG TT С GT GAM238 RGS20 3' AAGATGTGACCACTACATGTA 1049 TACATGTA TACATTTT ATGTACAT GTGTAGAA CACCA GAM238 LOC253573 3' GAGTTCAAAAGTACCACA 3725 AA A TGT TAC TTTTGAACTC ACA ATG AAAACTTGAG CC GAM238 LOC83690 3' AGATGAACTAATGTATTACATT 2203 С **TTGAAC** A ATGTAATACATT Α TCT A TACATTATGTAA AGA Т TCAAGT GAM239 RBM8A 3' AATGTTCCATTTTTGTTTTC 1186 Α GAAAACAAAAAT GATATT CTTTTGTTTTTA TTGTAA CC GAM239 SLC7A6 3' GTCTGTTTTTGTTCCCGA 1078 AATCG AACAAAAATAGAT AGC TTGTTTTTGTCTG CC GAM239 SEMA3E 3' AGTGTTTATTTCAGTTTTC 1432 AA GAAAAC AAATAGATATT 11111 1111111111 CTTTTG TTTATTTGTGA AC GAM239 LOC151201 3' AATGTCATTTTTGTTTTT 3339 Α **GAAAACAAAAAT GATATT**

TTTTTGTTTTTA CTGTAA

GAM239 LOC90979 3' AATAATATTTTTTTTTTTTT 2692 Т AAAACAAAAA AGATATTATT TTTTGTTTTT TTTATAATAA 3' CGAATCAAAACAACCCCCACAC 1017 GAM240 ZIC1 ATAGA AC TGT GG GTTTTGATTCG Α ACA CC CAAAACTAAGC CACCC AA GAM240 KIAA1550 3' CAGGACGTCCTCTACACA 2752 TGT TAGAGGACGTTTTG ACA ATCTCCTGCAGGAC C GAM240 LOC1437203' TCAAAGCTCCCCTATACA 2568 A C TGTATAG GGA GTTTTGA ACATATC CCT CGAAACT C _ GAM240 LOC150848 5' TCAAATCCCTTTTGTCTCTATA 3335 G TTTT C CA TGTATAGAG ACG GATT GA ACATATCTC TGT CTAA CT _ TTTCC A GAM241 MAIL 3' AGTCTTTGTAGATAAA 2194 AC TTTATCTACAG AGACT AAATAGATGTT TCTGA C _ C GAM241 LOC1514143' ATTATTCTTAGATCTGTAGATA 3157 TATCTACAGA AGA TAAT ATAGATGTCT TCT ATTA AGAT T GAM241 LOC155038 3' AGCTATTTGTAGATAAA CA 3197 TTTATCTACAGA AG CT AAATAGATGTTT TC GA Α_ GAM242 CRH 3' TTACTTAGCATGCACAAA 772 A GA TTTGT CA CTAAGTAA AAACA GT GATTCATT

C AC

TGTACAGA

2351

AATTCTT

CTAAGT

GAM242 C1orf24 3' AAGAATTTTCTGTACA

```
ACATGTCT TTAAGAA
                        T__
GAM242 C21orf67 5' AAAGATACTCACCTGTACAAA 2367
                                           ACTA AT
                     TTTGTACAG AGTA TCTTT
                     AAACATGTC TCAT AGAAA
                        CAC_ _
GAM242 KIAA0940 3' AAGAAATGTCTGTACAAA 1585
                                           TAAGTAA
                     TTTGTACAGAC
                                  TTCTT
                     AAACATGTCTG
                                  AAGAA
                         TA
GAM242 LOC158722 3' AAAGAATTATATTGCTGACAAA 3225
                                            A ACTAA
                     TTTGT CAG GTAATTCTTT
                     AAACA GTC TATTAAGAAA
                      GTTA
GAM242 LOC220705 3' AATGTCTTAGTTGTACAAA 3514
                                            A TA
                     TTTGTACAG CTAAG ATT
                     AAACATGTT GATTC TAA
                        _ TG
GAM243 ACVR1 3' AAGCAAAGATTTCAGTAGA 800
                                             Α
                     TCT TTGAAATCTTT CTT
                     AGA GACTTTAGAAA GAA
                      Т
GAM243 CELSR1 3' AAGTAAAATGCAAAGATGT 1486
                                           AAATC
                     ACATCTTTG TTTACTT
                     TGTAGAAAC
                              AAATGAA
                        GTA
                                         A T
GAM243 GJA1
            3' AAGTAGTGGATTCAAAGA 715
                     TCTTTGAA TC TTACTT
                     AGAAACTT GG GATGAA
                        ΑТ
GAM243 PLN
           3' AAGTAATTTTTCAAAGA 945
                                        TCT
                     TCTTTGAAA TTACTT
                     AGAAACTTT AATGAA
                        TTT
GAM243 CNOT7 3' AAGTAAAGATATAATTAGAGAT 2363
                                            A____
                     ATCTTTGA ATCTTTACTT
                     TAGAGATT TAGAAATGAA
                        AATA
GAM243 Grcc9 3' AAGTAAAAATAGTAAGAGATGT 2268
                                           GAA_ C
                     AACATCTTT AT TTTACTT
        Т
```

```
ATGA A
GAM243 KIAA1287 3' AAGTAGAAATCTCAAAGAT 3106
                                            A C
                     ATCTTTGA AT TTTACTT
                     TAGAAACT TA AGATGAA
                         CA
GAM243 KIAA1673 3' AAGTGTTTGATTCAGAGATGT 2894
                                               A TT
                     ACATCTTTGAA TC TACTT
                     TGTAGAGACTT AG GTGAA
                          TTT
GAM243 LHFP
             3' AAGCAAGGTACCCCCAAAGATG 1248
                                              AAAT A
         TT
                      AACATCTTTG CTTT CTT
                     TTGTAGAAAC
                                  GGAA GAA
                         CCCCAT C
GAM243 PDE10A 3' AAGTAGCAGTTCAAAAGATGT 1320
                                             GA CT
                     ACATCTTT AAT TTACTT
                     TGTAGAAA TTG GATGAA
                         AC AC
GAM243 TBDN100 3' AAGTAAAGATTTATCTGAT 2135
                                          TTTG
                     ATC AAATCTTTACTT
                     TAG TTTAGAAATGAA
                      TCTA
GAM243 LOC149448 3' GTAATTTTCAAAGATG
                                            TCT
                                   3310
                     CATCTTTGAAA TTAC
                     GTAGAAACTTT AATG
                          \mathsf{T}_{\_}
GAM243 LOC1554343' AGTGGCGATTCAAAGATG 3375
                                              A T
                     CATCTTTGAA TC TTACT
                     GTAGAAACTT AG GGTGA
                         _ C
GAM243 LOC221583 3' AAGTATACTACTCTCAAAGGTG 3557
                                                AATCTT__
                      ACATCTTTGA
                                   TACTT
                     TGTGGAAACT
                                   ATGAA
                         CTCATCAT
GAM243 LOC54466 3' AAGTGGCAACTGTCAAAGATG 1871
                                               AATCT
                     CATCTTTGA
                                TTACTT
                     GTAGAAACT
                                 GGTGAA
                         GTCAAC
GAM244 MECP2
             3' CCAGAGACAAATATTTCTAGA 1167
                                           С
                                               C AA
                     TC AGAGATAT TTGT TGG
```

TTGTAGAGA TA AAATGAA

```
A _ GAG
GAM244 ATP10B 3' CCAGGCAATATCTCAGGATA 2655 A CT AA
                    TATCC GAGATAT TGT TGG
                    ATAGG CTCTATA ACG ACC
                         __ G_
GAM244 BDG-29 3' CCATTACAGTGGCCTGGATA 2943
                                          AGA CT
                    TATCCAG TAT TGTAATGG
                    ATAGGTC GTG ACATTACC
                       CG
GAM244 GW112 3' CCACTTACTTAGATATCTGCAG 1298
                                          CAG
                                               T_ _
        ATA
                      TATC AGATATCT GTAA TGG
                    ATAG TCTATAGA CATT ACC
                      ACG
                            TT C
GAM244 HSPB7 3' CCATTACAACAGCTCCAGGA 1498
                                        A_ ATATC
                    TCC GAG TTGTAATGG
                    AGG CTC AACATTACC
                     AC GAC
GAM244 KIAA1464 3' CCAGTATTTATCTCTGGA 2813
                                         TCTT A
                    TCCAGAGATA GTA TGG
                    AGGTCTCTAT TAT ACC
                        T___ G
GAM244 KIAA1634 3' CCACCAACTATTTCTGGATA 2656
                                           TC TAA
                    TATCCAGAGATA TTG TGG
                    ATAGGTCTTTAT AAC ACC
                         C_ C_
GAM244 NETO1 3' CCATCATCTCATCTCTGGATG 2463
                                           ATCT TA
                    TATCCAGAGAT TG ATGG
                    GTAGGTCTCTA AC TACC
                        CTCT
GAM244 PRO2533 3' CCATTACAAAATGTAATGG 1854
                                        GAG C
                    CCA ATAT TTGTAATGG
                    GGT TGTA AACATTACC
                     AA_A
GAM244 LOC151201 3' TGTAAAATACCTCTGGATA 3343
                                           A C
                    TATCCAGAG TAT TTGTA
                    ATAGGTCTC ATA AATGT
                       C A
GAM245 FLJ14124 3' CAAAACGAGTAAAGAGCAG 2099
                                        T TAAAG
                    CT CTT TACTCGTTTTG
```

AG TCTTTATA AACA ACC

```
GA GAG ATGAGCAAAAC
                      C AA
GAM245 FLJ20039 3' TGGGATAACTACTTTAAAGAA 1735
                     TTCTTTAAAGTA CTCG
                     AAGAAATTTCAT GGGT
                         CAATA
GAM245 FLJ21369 5' CAAAACCTGAAACTTTAAAGGA 2090
                                              ACTC
                     TTCTTTAAAGT GTTTTG
                     AGGAAATTTCA CAAAAC
                         AAGTC
GAM245 KIAA1577 5' ATGGGTACCCCAGAGAAG 2690
                                           AAA
                     CTTCTTT GTACTCGT
                     GAAGAGA CATGGGTA
                       CCC
GAM245 LOC144524 3' CAAAACAAGGCATAAAGAAGT 3269
                                            AAGTA C
                     ACTTCTTTA CT GTTTTG
                     TGAAGAAAT GA CAAAAC
                        ACG__ A
GAM245 LOC150170 5' CAAAATGGAACTTTAAAACAGT 3143
                                            TC
                                                 ΑТ
                     TACT TTTAAAGT C CGTTTTG
                     ATGA AAATTTCA G GTAAAAC
                      CA
                           Α
GAM245 LOC150175 5' CAAAATGGAACTTTAAAACAGT 3144
                                                 ΑТ
                                            TC
                     TACT TTTAAAGT C CGTTTTG
        Α
                     ATGA AAATTTCA G GTAAAAC
                      CA
GAM245 LOC150215 5' CAAAATGGAACTTTAAAACAGT 3145
                                            TC
                                                 ΑТ
        Α
                     TACT TTTAAAGT C CGTTTTG
                     ATGA AAATTTCA G GTAAAAC
                      CA
                           Α_
GAM245 LOC150218 5' CAAAATGGAACTTTAAAACAGT 3146
                                            TC AT
                     TACT TTTAAAGT C CGTTTTG
                     ATGA AAATTTCA G GTAAAAC
                      CA
                           Α_
GAM246 CCRL1 3' TGTAACTTCCTGTGAATTTA 1697
                                           G
                                             A C
                     TAAATTCG CAGGAA GT ACA
                     ATTTAAGT GTCCTT CA TGT
GAM246 PAFAH1B1 3' TGTGACTTCCAAGTAGAATTTA 741
                                             GA_A
                     TAAATTC GC GGAA GTCACA
```

```
A AA _
GAM246 PSMB9 3' TGACTTTCTTCAAACCTGGA 956
                                         AA C C
                    TCTA TT GG AGGAAAGTCA
                    AGGT AA CT TTCTTTCAGT
                      CC A C
GAM246 SLC4A4 3' TGTGACTTTTATGGAATTAAGA 1055
                                        A GG G
                    TCT AATTC CA GAAAGTCACA
                    AGA TTAAG GT TTTTCAGTGT
GAM246 TNFAIP1 3' TGACTTTCCCACAGAGACTGGA 1944
                                           AA GGCA
                    TCTA TTC GGAAAGTCA
                    AGGT GAG CCTTTCAGT
                      CA ACAC
GAM246 CAT56 3' GTGACTTCCCAGCACTAGA 2149
                                        AATTCG A A
                    TCTA GC GG AAGTCAC
                    AGAT CG CC TTCAGTG
                      CA____ A C
GAM246 FLJ10520 3' TGTGACTTTCTGGACCTTAGA 1785
                                          ATTC CA
                    TCTAA GG GGAAAGTCACA
                    AGATT CC TCTTTCAGTGT
                         AGG
GAM246 FLJ14001 5' TGCGACCCCCTGCCCCGAAT 2081
                                             AAA A
                    ATTC GGCAGG GTC CA
                    TAAG CCGTCC CAG GT
                          CCC C
                      CC
GAM246 FLJ14917 3' TGTGACTTTCCTGGTGCATCCA 2290 AA T G
        GG
                      TCT AT CG CAGGAAAGTCACA
                    GGA TA GT GTCCTTTCAGTGT
                     CC C G
GAM246 KIAA0618 3' TGTGACTTTGCCCCAAATTTG 1564
                                           C CA _
                    TAAATT GG GG AAAGTCACA
                    GTTTAA CC CC TTTCAGTGT
                       A __ G
GAM246 KIAA1750 3' GACTTTCCCCATTTTAG
                                 2812
                                        TTC CA
                    CTAAA GG GGAAAGTC
                    GATTT CC CCTTTCAG
                      TA_ _
GAM246 MAGEF1 3' GTGACTTTAAGGATTTAGA 2555
                                           GGCAGG
                    TCTAAATTC AAAGTCAC
```

ATTTAAG TG CCTT CAGTGT

```
AGATTTAGG TTTCAGTG
                        AA
GAM246 LOC253017 5' TGACTTTCACCAATTTA
                                         C CAG
                                  3685
                    TAAATT GG GAAAGTCA
                     ATTTAA CC CTTTCAGT
                       _ A__
GAM246 LOC51705 3' TGACTTTCCTTAATGTTTA 1674
                                         TCGGC
                    TAAAT AGGAAAGTCA
                     ATTTG TCCTTTCAGT
                      TAAT
GAM247 BCL11B 3' AATGGTGGGTCTATAAATTTGT 2019
                                            AT TT
                    ATAAATTTATA G CGCCATT
                    TGTTTAAATAT T GTGGTAA
                         C GG
GAM247 FGFR4 3' AATGGCGTTTTATAAATT 2022
                                         TGTT
                    AATTTATAA CGCCATT
                    TTAAATATT GCGGTAA
                        TT__
GAM247 FGFR4 3' AATGGCGTTTTATAAATT 887
                                         TGTT
                    AATTTATAA CGCCATT
                     TTAAATATT GCGGTAA
                        TT
                                           T ___
GAM247 FLJ22833 3' AATGGCCGGGGACTTATAAAT 2015
                    ATTTATAA GTTC GCCATT
                    TAAATATT CAGG CGGTAA
                        GGC
GAM247 SSH2
            3' AATGGCCGGCTCTGCAAATTTA 2625
                                           A AT TC
        Т
                     ATAAATTT TA GT GCCATT
                     TATTTAAA GT CG CGGTAA
                        C CT GC
GAM248 RARB
            3' TTCACAAGCCATTAGGGA 792
                                         AA C
                    TCCCTAAT CTT GTGAA
                     AGGGATTA GAA CACTT
                        CC _
GAM248 RARB
            3' TTCACAAGCCATTAGGGA 1663
                                         AA C
                    TCCCTAAT CTT GTGAA
                     AGGGATTA GAA CACTT
                        CC _
GAM248 BTN2A2 3' CACTTAGAAGTTATTGAGGA 1344
                                         С
                    TCC TAATAACTTC GTG
```

```
AGG GTTATTGAAG CAC
                      Α
                          ATT
                                           A_ TC
GAM248 ZNF337 3' TTACCTGGGCTATTGGGGA 2806
                    TCCCTAATA CT GTGA
                    AGGGGTTAT GG CATT
                        CG TC
GAM248 LOC139231 3' TCACTTGAGAAGTTGTTAGG 3021
                    CCTAATAACTTC GTGA
                     GGATTGTTGAAG CACT
                         AGTT
GAM248 LOC221399 5' CACTCAAGTCATTAGGGA 3622
                                           A C
                    TCCCTAAT ACTT GTG
                    AGGGATTA TGAA CAC
                        C CT
GAM249 DKFZp762E1511 3' AGGTTGGAAATGCACTGAA 2530
                                              C AT
                    TTCAG GTG TTTCCAACCT
                    AAGTC CGT AAAGGTTGGA
                      Α __
GAM249 LOC123591 5' AGGTTGGAAAAGGCTCCGC 3032
                                          T ___
                     GCG GA TTTTCCAACCT
                     CGC CT AAAAGGTTGGA
                      CGG
GAM250 EFNB2 3' GTTGAAAAGCCAAAGGT 1085
                                        С
                                           TTA
                     GCCT TGGCTTT TCAGC
                     TGGA ACCGAAA AGTTG
GAM250 FACL4 5' AGGCTTTCAAAAGCCAAAG 2025
                                            TATC
                    CT TGGCTTTT AGCCT
                     GA ACCGAAAA TCGGA
                     Α
                         CTT
GAM250 GATA2 3' AGGCTGGGCTGAGCCAAAGC 892
                                         CTC TTTA
                     GC TGGCTT TCAGCCT
                     CG ACCGAG GGTCGGA
                          TCG_
                     AA_{-}
GAM250 IRS2
           3' CTGATAAAAAGAGGC
                               2540
                                      GGCT
                     GCCTCT TTTTATCAG
                     CGGAGA AAAATAGTC
GAM250 PAH
            5' AGGCCCTAAAAAGCCAGAG 725
                                           TCA
```

CTCTGGCTTTTTA GCCT

```
CC_
GAM250 PODXL 3' GCTGCACAGGAGGCCAGA 1207
                                           ΑT
                    TCTGGCTTTTT CAGC
                    AGACCGGAGGA GTCG
                        CAC
GAM250 RPL15 3' GCTGGTGAGCCAGTGGC 973
                                       Т
                                          TTT
                    GCC CTGGCTT ATCAGC
                    CGG GACCGAG TGGTCG
GAM250 SERPINE1 3' AGGCTGGTGACAGGCCAAAGGC 758
                                              Т
                    GCCT TGGCTT TTATCAGCCT
                    CGGA ACCGGA AGTGGTCGGA
                         С
GAM250 ABIN-2 3' GCTTAAGCCAGAGCTA
                              2057
                                      С
                                          TTTATC
                    TAGC TCTGGCTT AGC
                    ATCG AGACCGAA
                                  TCG
                          T___
GAM250 C20orf48 5' GGCCGAGGGACAAAGGCTA 2118
                                          C G TTTA A
                    TAGCCT TG CTT TC GCC
                    ATCGGA AC GGG AG CGG
                       A A C
GAM250 C9orf7 3' AGACTGGCTTAAGCCAGGAGC 1724
                                             TTTA C
                                        CT
                    GC CTGGCTT TCAG CT
                    CG GACCGAA GGTC GA
                          TTC_ A
                     AG
GAM250 DUSP10 3' CTGACAAATTAAGGAGGTTA 1364
                                           GGCTT A
                    TAGCCTCT TTT TCAG
                    ATTGGAGG AAA AGTC
                       AATT_ C
GAM250 DUSP10 3' CTGACAAATTAAGGAGGTTA 2501
                                           GGCTT A
                    TAGCCTCT TTT TCAG
                    ATTGGAGG AAA AGTC
                       AATT_ C
GAM250 ERMAP
             3' GCTGATGGTCCTGTCCAAAGGC 1838
                                           C _ TTT_
        TΑ
                     TAGCCT TGG C TTATCAGC
                    ATCGGA ACC G GGTAGTCG
                       A T TCCT
GAM250 FLJ12892 3' GCTGATAAAGAAGTGCTA 2802
                                        CT GGC
                    TAGC CT TTTTTATCAG C
```

GAGACCGAAAAAT CGGA

```
ATCG GA AGAAATAGTC G
                             Α
GAM250 FLJ22059 5' GACTGGAGAGCCAGAGGC 2003
                   GCCTCTGGCTTTTTA TC
                   CGGAGACCGAGAGGT AG
                         C
GAM250 HEMK 3' GGCCAAAGCCAGAGACT 1669 C
                                          TTATCA
                   AG CTCTGGCTTT GCC
                   TC GAGACCGAAA CGG
                    Α
                         С
GAM250 KIAA0227 3' GGGCCCCAAAAGACCAGAGGC 2578
                                             TATCA
                   GCCTCTGG CTTTT GCCT
                   CGGAGACC GAAAA CGGG
                      A CCC_
GAM250 KIAA0527 3' GAATAAAAGCCAGAGACTG 3684
                                       С
                                            TΑ
                   TAG CTCTGGCTTTT TC
                   GTC GAGACCGAAAA AG
                    Α
                         TΑ
GAM250 KIAA1244 3' AGGCTTCAGTAAAGCAGAGGCT 2930 G TTATC
                    TAGCCTCTG CTTT AGCCT
                    ATCGGAGAC GAAA TCGGA
                       _ TGACT
GAM250 KIAA1649 3' TGAAAAAAACCAGAGACT 2771 C C A
                   AG CTCTGG TTTTT TCA
                   TC GAGACC AAAAA AGT
                    A A
GAM250 KIAA1981 3' AGGCCACGGGAGCCGAGGC 3431 T TATCA
                   GCCTC GGCTTTT GCCT
                   CGGAG CCGAGGG CGGA
                        CAC__
GAM250 MGC2306 3' AGGCTGGGCTGAGCCAAAGC 2266
                                        CTC TTTA
                   GC TGGCTT TCAGCCT
                   CG ACCGAG GGTCGGA
                    AA_ TCG_
GAM250 RPL39L 5' GTGGGAAAAAAGCAGAGGC 2352
                                         G A A
                   GCCTCTG CTTTTT TC GC
                   CGGAGAC GAAAAA GG TG
                      _ A G
GAM250 SNPH
            3' CTGAAAAAGCCAGAGGC 1531
                                         TA
                   GCCTCTGGCTTTT TCAG
```

CGGAGACCGAAAA AGTC

GAM250 TMG3 3' GCCCCCGGGAAGAGCCAAAGGC 2053 С ATCA GCCT TGGCTTTTT CGGA ACCGAGAAG CG GGCCCC C G ATC GAM250 LOC145240 3' GCTCGAAAAGGCAAAGGCTA 3076 TAGCCT TG CTTTTT AGC ATCGGA AC GAAAAG TCG С A G GAM250 LOC146287 5' AGGCTGAACAGCAAACCCAGAG 3284 C TTA GCCTCTGG TTT TCAGCCT GC CGGAGACC AAA AGTCGGA C CGACA GAM250 LOC148696 5' AGACTGTACAGGAAACCTAAGG 3301 CT C AT C C GCCT GG TTTTT CAG CT CGGA CC AAGGA GTC GA AT A CAT A GAM250 LOC150577 3' AGGCCGACAACCACCAGAAGCT 3330 C CTTTTTA A TAGC TCTGG G TC GCCT | | | | | | | GTCG AGACC AG CGGA A ACCAAC_ C GAM250 LOC151521 3' TGTTTAAAAACCCAAAGGC 3347 СС Т GCCT TGG TTTTTA CA CGGA ACC AAAAAT GT A C TT GAM250 LOC157273 5' AGGCTGGATGAAGCCAGGGGCT 3379 TTA Α TAGCCTCTGGCTTT TCAGCCT ATCGGGGACCGAAG GGTCGGA TA_ GAM250 LOC163682 5' GAGCCAAAAGCCAGAGCCTA 3398 С TΑ TAG CTCTGGCTTTT TC ATC GAGACCGAAAA AG CCG GAM250 LOC221749 3' GCTGAGGTCACAGCCGGAGGC 3549 TTTTA GCCTCTGGCT TCAGC Ш CGGAGGCCGA **AGTCG** CACTGG GAM250 LOC222234 3' AGGCTGATGCCCCAAAAGGC 3646 C_ CTTTT GCCT TGG TATCAGCCT

```
CGGA ACC GTAGTCGGA
                      AA CC
GAM251 ADAMTSL1 3' AACCATTAGAGGTGCAATCTAC 2479
                                           _ CA_ TTA
                     TG AGAT ACT TCTAATGGTT
                    AC TCTA TGG AGATTACCAA
                     A ACG
GAM251 KIAA1862 3' AACCACCAGCCGTTCCTGATCT 2834
                                           ACTTTAT AA
        CA
                     TGAGATCA CT TGGTT
                    ACTCTAGT GA ACCAA
                       CCTTGCC CC
GAM251 LOC153951 5' AACCATGAAAGACAGAGTTGAT 3184
                                               А А
        CTCA
                       TGAGATCAACTTT TCT ATGGTT
                    ACTCTAGTTGAGA AGA TACCAA
                         C AAG
GAM251 LOC221596 3' AACCATTAGACAAAACTCTTCT 3548 TCAAC A
                    AGA TTT TCTAATGGTT
                    TCT AAA AGATTACCAA
                     TCTCA C
GAM252 ESAM
            3' CTTTACTGTGGGAAAACCATCT 2461 GA A
                                                AC
        CA
                     TG AT GTTTTTT TAGTAAAG
                    AC TA CAAAAGG GTCATTTC
                     TC C
                            GT
GAM252 KIAA0379 3' ACTAAGAAAACTATTTCA 2809
                                           AC
                    TGGAATAGTTTTTT TAGT
                    ACTTTATCAAAAGA ATCA
GAM252 LOC161784 3' CTTTAATTTTAAAAAACGTATT 3241
                                                CTAG
        CCA
                      TGGAATA GTTTTTTA TAAAG
                    ACCTTAT CAAAAAAT ATTTC
                       G
                           TTTA
GAM252 LOC255229 3' CTTTAATTTTAAAAAACGTATT 3676
                                                CTAG
        CCA
                      TGGAATA GTTTTTTA TAAAG
                    ACCTTAT CAAAAAAT ATTTC
                           TTTA
GAM253 HIP2 3' TGTTTTTAACATGGATC 1201
                                     G
                    GAT CCATGTTAAAAATG
                    CTA GGTACAATTTTTGT
GAM253 ITK
           3' TATTTTTAACATGAATC
                              1224
                                     GC
```

GAT CATGTTAAAAATG

```
CTA GTACAATTTTTAT
GAM253 ONECUT1 3' GCGGACATCTTTTAAGAT 2622
                                         G
                     AT TTAAAA ATGTCCGC
                     TA AATTTT TACAGGCG
                      G C
GAM253 BTN3A2 5' GACATTTTTGGCAGAGCAT 1354
                                          CA
                     ATGC TGTTAAAAATGTC
                     TACG ACGGTTTTTACAG
                      AG
GAM253 BTN3A3 5' GACATTTTTGGCAGAGCAT 1343
                                          CA
                     ATGC TGTTAAAAATGTC
                     TACG ACGGTTTTTACAG
                       AG
GAM253 IDN3 3' GGCAAACATTTTTGTGG
                                 2416
                                       GTT
                                             CC
                     CCAT AAAAATGT GCC
                     GGTG TTTTTACA CGG
                            AA
GAM253 KIAA1635 3' CGGACATTTATTTGCATC 2803
                                          CAT TAA
                     GATGC GT AAATGTCCG
                     CTACG TA TTTACAGGC
                       TT_ _
GAM253 LOC130106 3' GGCAAACACCTGACATGGCA 3008
                                              AAAA CC
                     TGCCATGTTA TGT GCC
                     ACGGTACAGT ACA CGG
                         CC__ AA
GAM253 LOC151031 3' GGCATCTTAACATGGCATT 3403
                                               AA
                     GATGCCATGTTAA ATGTC
                     TTACGGTACAATT TACGG
                          C_{-}
GAM253 LOC162545 3' GGCATCTACATGGCATC
                                            TAAAA
                                    3402
                     GATGCCATGT ATGTC
                     CTACGGTACA
                                TACGG
                         TC_
GAM253 LOC165666 5' GGCAGGGTTTTTAAATAGCATC 3257
                                             CATG
                                                    GT _
                     GATGC TTAAAAAT CC GCC
                     CTACG AATTTTTG GG CGG
                       \mathsf{ATA}_{-}
GAM254 MEN1
            5' AATGACTTGGGGATGATGC 3599
                                             Α
                     GCATCATCTTTAG TCATT
```

CGTAGTAGGGGTT AGTAA

С

GAM254 SRD5A2 5' AATTAATGATGAGGTTACATGC 2525 C TAG Т AGCAT ATCTT ATCATTAATT TCGTA TGGAG TAGTAATTAA CAT GAM254 DKFZP564O043 3' TGATGTCTGAAGATAATGCT 3566 С Т AGCAT ATCTTTAGA CATTA TCGTA TAGAAGTCT GTAGT GAM254 FLJ22794 5' AATTAATGACAGCTTTGAAGAT 3533 ATCTTTAGA TCATTAATT TAGAAGTTT AGTAATTAA **CGAC** GAM254 HTMP10 3' AATTGTTATCTAAAGATGATTC 2322 C CAT Т AG ATCATCTTTAGAT TAATT TC TAGTAGAAATCTA GTTAA Т TT GAM254 SEC24B 3' AATTAATGGTAACGATGATGCT 1288 **TTTAG** AGCATCATC ATCATTAATT TCGTAGTAG TGGTAATTAA CAA GAM254 LOC196812 5' AATGATCTAGTCAGAAGCT 3466 A ATCT AGC TC TTAGATCATT TCG AG GATCTAGTAA A ACT_ GAM255 ATRN A AAT A 3' TAAGGGAGGTCTGTGCATTTTA 2480 TAAAAT CA GAC TTCCCTTA ATTTTA GT CTG GAGGGAAT C GT_ _ GAM255 CD59 3' AATGACATTTGTATTTTA 760 TAAAATACAAATG CATT ATTTTATGTTTAC GTAA GAM255 CENTD1 3' GGATCATTTGTATTTTG 1615 CAT TAAAATACAAATGA TCC GTTTTATGTTTACT AGG GAM255 CENTD1 3' GGATCATTTGTATTTTG 2474 CAT TAAAATACAAATGA TCC

GTTTTATGTTTACT AGG

GAM255 CLNS1A 3' GAGGGTATTTGTAGTTTA 816 Α **ACATT** TAAA TACAAATG CCCTT ATTT ATGTTTAT GGGAG G GAM255 NDUFA5 3' AGTGTCATTTTATTTTA 1169 C TAAAATA AAATGACATT ATTTTAT TTTACTGTGA GAM255 PBX3 3' GGAATCATAATCATTTGTATTT 1279 C____ AAATACAAATGA ATTCC TTTATGTTTACT TAAGG **AATAC** GAM255 SCD 3' TAAGGGAAGATCACTGTAGTTT 1178 A AA CA TAAA TACA TGA TTCCCTTA Α ATTT ATGT ACT AAGGGAAT G C_ AG GAM255 SLC2A2 3' TAAGGGAACCGTCTGTTTTTA 731 T AAT A TAAAA ACA GAC TTCCCTTA ATTTT TGT CTG AAGGGAAT _ __ CC GAM255 TCF7 3' TAAGGGAATCCCTTGTA 998 AT CA TACAA GA TTCCCTTA ATGTT CT AAGGGAAT CC G TCC GAM255 DKFZP586B0923 3' AAGACATGTGATTTGTATTTTA 3589 TAAAATACAAAT ACAT CTT ATTTTATGTTTA TGTA GAA G CA_ GAM255 DKFZp761K1824 3' TAAGAGAATGTTGTGTATTT 1726 AΑ C AAATACA TGACATTC CTTA TTTATGT GTTGTAAG GAAT GAM255 FLJ14624 3' TAAGGAAATATTTATTTGTATT 2913 C_ C TT AAAATACAAATGA ATT CCTTA TTTTATGTTTATT TAA GGAAT TA A GAM255 GRO3 3' TAAGGGAATGTATGTA 2636 **AATG** TACA ACATTCCCTTA

```
ATGT TGTAAGGGAAT
GAM255 KIAA0907 3' AAGAAAGTTTTATTTGTATTTT 1596
                                               C CC
                      TAAAATACAAATGA ATT CTT
                     ATTTTATGTTTATT TGA GAA
                           T AA
GAM255 MGC14289 3' AAGGATACTGTCATTTGCATTT 2382
                                                  TTC_
                                             Α
         Т
                      AAAAT CAAATGACA CCTT
                     TTTTA GTTTACTGT GGAA
                       С
                            CATA
GAM255 NLP 1 3' AAGGGAATTTTTTGTA 1395
                                         T C
                     TACAAA GA ATTCCCTT
                     ATGTTT TT TAAGGGAA
                        Т
                                              \mathsf{T}_{-}
GAM255 PARVA 3' GAGTGCTCCTTTTGTATTTTA 1802
                     TAAAATACAAA GA CATTC
                     ATTTTATGTTT CT GTGAG
                          TC C
GAM255 PRO2176 3' AAGGGCTGCATTGTATTTTA 1833
                                              A A TT
                     TAAAATACAA TG CA CCCTT
                     ATTTTATGTT AC GT GGGAA
                         _ _ C_
                                               _ ATTC
GAM255 TIMM22 3' AAGGTTGGTTTATTTGTATTTT 3104
                      TAAAATACAAATGA C CCTT
         Α
                     ATTTTATGTTTATT G GGAA
                           T GTT
GAM255 LOC143914 5' GAGGGAGTCATTTTATT
                                    3061
                                              ΑT
                     AATA AAATGAC TCCCTT
                     TTAT TTTACTG AGGGAG
GAM255 LOC154862 3' AAGGGTGAAATTTGTGTTTTA 3193
                                                GA TT
                     TAAAATACAAAT CA CCCTT
                     ATTTTGTGTTTA GT GGGAA
                          AA _
GAM255 LOC1583143' AAGGGAATGTTTAAGCCATTT 3386
                                             ACAAAT
                     AAAT GACATTCCCTT
                     TTGTAAGGGAA
                     TTTA
                       CCGAAT
GAM255 LOC221405 3' AAGGGACTATTTGTATT
                                    3623
                                             ACAT
```

AATACAAATG TCCCTT

```
TTATGTTTAT AGGGAA
                        C_{-}
GAM256 YES1 3' ATGATGAATTTATCAGCGT 1209 A
                                          CCG
                    AC CTGATAAA CATTAT
                    TG GACTATTT GTAGTA
                         AA
                     С
GAM256 ACTR3 3' GATGGGATTTATCAGTGT 1238
                                         _ G
                    ACACTGATAAA CC CATT
                    TGTGACTATTT GG GTAG
GAM256 GENX-3414 3' CAGATAATGCTTCCAGTG 1073
                                         ATAAACC
                    CACTG GCATTATCTG
                    GTGAC CGTAATAGAC
                      CTT
GAM256 HT007 3' ACAGATAATAAATATCCAGTGT 1832
                                         _ AACCGC
                    ACACTG ATA ATTATCTGT
                    TAATAGACA
                    TGTGAC TAT
                      C AAA
GAM256 SPRY4 3' ACAGACAATGCAGGGGCAG 2175
                                        ATAAA A
                    CTG CC GCATT TCTGT
                    GAC GG CGTAA AGACA
                     GG A C
GAM257 POF1B 3' GAACCATGCTGCTACCCAA 2114
                                          _ TG A
                    TTGGGTAGT GT ATG TTC
                    AACCCATCG CG TAC AAG
                       T C
GAM257 RODH-4 5' CATGGGTAGCTACCCAATAAG 1050
                                             GT G
                    TTTATTGGGTAGT TATG
                    GAATAACCCATCG G TAC
                         ATG G
GAM257 SFRS12 3' GAATCATTGGGACTACCCA 2472
                                         G TG
                    TGGGTAGT T ATGATTC
                    ACCCATCA G TACTAAG
                       G GT
GAM257 TCBAP0758 3' GAATCCCCAACACCCAATAAA 2181
                                         AGT AT
                    TTTATTGGGT GTTG GATTC
                    AAATAACCCA CAAC CTAAG
                          CC
GAM258 HYOU1 3' CTCTGTTTTCCCCATTCA 2537 T TA
                    C AGTG GAAAACAGAG
```

```
C CC
                                    A A G
GAM258 ITGB1 3' ATCTTGTTTCACACTAGT 910
                    ACTAGTGT GAAA CA AGAT
                    TGATCACA CTTT GT TCTA
GAM258 MAGEA4 3' TATCTCTGTTTCCTTTTACA 922
                    TGTAGAA AACAGAGATA
                    ACATTTT TTGTCTCTAT
                       CCT
GAM258 PTTG1IP 3' ATCTCTGTTTCTAGATTTAGT 1100
                                         _G A
                    ACTAG T TAGAAA CAGAGAT
                    TGATT A ATCTTT GTCTCTA
                      ΤG
GAM258 RAB27A 3' ATCTCTGTCTTTACCAGC 1129
                                       __ AA
                    GT GTAGA ACAGAGAT
                    CG CATTT TGTCTCTA
                     AC C_
GAM258 SALL2 5' ATCTCTGCTTCACAGT
                                2671
                                     A T AAAA
                    ACT GTG AG CAGAGAT
                    TGA CAC TC GTCTCTA
                     _ T _
GAM258 SFRS7 3' TGCTTTCTACATTAGTTA 2529
                                           Α
                    TAACTAGTGTAGAAA CA
                    ATTGATTACATCTTT GT
                          С
GAM258 SLC19A2 3' GTCTTTCTACATAGTTA
                                 2836
                                     G AAACA
                    TAACTA TGTAGA GAGAT
                    ATTGAT ACATCT TTCTG
GAM258 C20orf97 3' ATCTCTGTCCTCTTGATTA 1946
                                        GT AA
                    TAGT AGA ACAGAGAT
                    ATTA TCT TGTCTCTA
                      GT CC
GAM258 CYB5-M 3' TCTGTTTTTTCTACCCTAG 2150
                                        T __
                    CTAG GTAGAAA ACAGA
                    GATC CATCTTT TGTCT
                      С
                         TT
GAM258 CYB5-M 3' TCTGTTTTTCTACCCTAG 3658
                                        Т
```

CTAG GTAGAAA ACAGA

A TTAC CTTTTGTCTC

```
GATC CATCTTT TGTCT
                       C
                          TT
GAM258 FAM8A1 3' TATCCCTGGGTTACACTA 1675
                                          AAAA A
                     TAGTGTAG CAG GATA
                     ATCACATT GTC CTAT
                        GG C
GAM258 FLJ10853 5' TCTGCCTACACTATTTA
                                  1804
                                        С
                                            AAAA
                     TAA TAGTGTAG CAGA
                     ATT ATCACATC GTCT
                      Т
                          С
GAM258 FLJ14327 3' ATCTCTGTCTACAAAACTAG 2111
                                              AAA
                     CTAGT GTAGA CAGAGAT
                     GATCA CATCT GTCTCTA
                       AAA
GAM258 FLJ14681 5' TATCTCTGCCTTCCAGGCAT 2285
                                           A_{\underline{\hspace{1cm}}} AA
                     GTGT GAA CAGAGATA
                     TACG CTT GTCTCTAT
                       GAC CC
GAM258 HNRPA3 3' ATCTCTATTCTACATTTA 1245 T
                                            AAC
                     C AGTGTAGAA AGAGAT
                     A TTACATCTT TCTCTA
                     Т
                          Α
GAM258 KIAA0426 3' TATCTCTGTTTTGGGAGACAGG 1532
                                            A GTAG
         Т
                     ACT GT AAAACAGAGATA
                     TGG CA TTTTGTCTCTAT
                      A GAGGG
GAM258 KIAA0594 3' TATCTCTAAGTTATACTAATTA 2707
                                          С
                                               AAAAC
                     TAA TAGTGTAG AGAGATA
                     ATT ATCATATT TCTCTAT
                      Α
                          GAA
GAM258 KIAA0635 5' ATCTCAATTTACACTAG
                                           AAACA
                                 1513
                     CTAGTGTAGA GAGAT
                     GATCACATTT CTCTA
                         AA
GAM258 PDZD2 5' ATCCCTGTTTTCGGGGACTA 3181
                                          GTA_
                                                 Α
                     TAGT GAAAACAG GAT
                     ATCA CTTTTGTC CTA
                       GGGG
                              C
GAM258 PP1628 5' ATCTCTGTTCCCCATCCCCAGT 2145
                                           A___ TA AA
```

ACT GTG GA ACAGAGAT

```
TGA TAC CT TGTCTCTA
                      cccc cc _
GAM258 TIP120A 3' TATCCCTGTTGCGCACACTA 1829
                                           AGAA A
                     TAGTGT AACAG GATA
                     ATCACA TTGTC CTAT
                        CGCG C
GAM258 LOC220988 3' ATCTCTATTCTACATTTA 3501
                                         Τ
                                             AAC
                     C AGTGTAGAA AGAGAT
                     A TTACATCTT TCTCTA
                      Т
                          Α
GAM258 LOC221337 5' ATCTCTGTTCTCTAAGCAC 3555
                                           __ A
                     GTGT AGA AACAGAGAT
                     CACG TCT TTGTCTCTA
                       AA C
GAM258 LOC257017 5' TATCTCTGTTTTGGCAT
                                   3737
                                          AG
                     GTGT AAAACAGAGATA
                     TACG TTTTGTCTCTAT
                       G_{-}
GAM258 LOC90829 5' TATCTCTGTTTTGGTACCAGT 2680
                                           A AG
                     ACT GTGT AAAACAGAGATA
                     TGA CATG TTTTGTCTCTAT
                      C G_
GAM259 KIAA0268 3' ACAAAACAATGCTGAAGTTAAT 2874
                                             TAT
                      ATATTA CT CG CATTGTTTTGT
         ΑT
                     TATAAT GA GT GTAACAAACA
                        TAC
GAM259 KIAA1255 3' ACAAAACAACTCTGAGATGA 2783
                                            A TCA
                     TTATCT CG TTGTTTTGT
                     AGTAGA GT AACAAAACA
                       _ CTC
GAM259 MGC5370 3' CAAAACATCAGATAATAT 2275
                                            ACGTCAT
                     ATATTATCT
                                TGTTTTG
                     TATAATAGA
                                 ACAAAAC
                         CT
GAM259 UK114 3' ACAAAATGTTATATAGATAATA 1255
                                             CG CAT
                      ATATTATCTA T TGTTTTGT
         Т
                     TATAATAGAT A GTAAAACA
                         AT TT_
GAM260 OSBPL8 3' CTACATATGAGTATAATA 1927
                                             CC
                     TATTATACTCATG TAG
```

ATAATATGAGTAT ATC

AC

	AC
GAM260	LOC147463 3' CTATTACTATTGCAGGAATATA 3109 C A C_
	A TTATA TC TGC TAGTAATAG
	AATAT AG ACG ATCATTATC
	A G TT
GAM260	LOC151201 5' ATTAGTAGCATGAGTATAA 3340 C G
	TTATACTCATGC TA TAAT
	AATATGAGTACG AT ATTA
	_ G
GAM261	JJAZ1 3' AGCACTGTGGTTGAGTAACATC 1621 _ TT_
	GATGTTAC CAATCG TGCT
	CTACAATG GTTGGT ACGA
	A GTC
GAM261	SIAT1 3' AGGGGATTGGAAACATCGT 986 A G
	ACGATGTT CCAATC TTT
	TGCTACAA GGTTAG GGA
	A G
GAM261	ATP6V0A1 3' AGGGGACACTGGTAACAT 1191 ATC G
	ATGTTACCA GTTT CT
	TACAATGGT CAGG GA
	CA_ G
GAM261	FLJ21313 3' AGCGAATTGGTTACATCGTT 2038 T ATC
	AACGATGT ACCA GTTTGCT
	TTGCTACA TGGT TAAGCGA
	Т
GAM261	FLJ23548 3' AGCAAATTTGGCTCGATAATAT 2068 TC
	CG CGATGTTA CCAA GTTTGCT
	GCTATAAT GGTT TAAACGA
	AGCTC
GAM261	LOC196510 3' GCAAAAGGCAACATTGTT 3414 A AATCG
	AACGATGTT CC TTTGC
	TTGTTACAA GG AAACG
	C A
GAM261	LOC200220 3' GCAAAAGGCAACATTGTT 3443 A AATCG
	AACGATGTT CC TTTGC
	TTGTTACAA GG AAACG
	C A
GAM261	LOC222234 3' AGCAAGATGGGTAACATC 3645 A GT
	GATGTTACC ATC TTGCT

CTACAATGG TAG AACGA

G __ GAM262 CDKN1B 3' GACAAAATTTTCTCATTTTCTT 1082 TGT C TTCACT GTGAAAAGAA AAA TTTGTC CACTTTTCTT TTT AAACAG TTACTCT A GAM262 CSPG3 3' ACAAAGGTCTTCTTTTCCT 1107 T **TGTAAA** AG GAAAAGAA CTTTGT TC CTTTTCTT GAAACA _ CTG GAM262 ITSN1 3' ACAAAGTTTACATTTCATACT 981 AAAA AGTG GAATGTAAACTTTGT TCAT TTTACATTTGAAACA AC__ GAM262 MBNL 5' GACATGCAACAGTCTTTCACT 1937 A AAACTT AGTGAAAAGA TGT TGTC TCACTTTTCT ACA ACAG G ACGT__ GAM262 MEFV 3' GACAAAGTTTTGCTCTTGTCAC 719 A ATGT GTGA AAGA AAACTTTGTC CACT TTCT TTTGAAACAG G CGT GAM262 NR3C1 3' GACAAAGTAATTCCTCTCACT 716 AAA GTAA AGTGA GAAT ACTTTGTC TCACT CTTA TGAAACAG CTC A GAM262 TIF1 3' ACAAAGACATTCTTCCCACT 2564 AA AAA AGTG AAGAATGT CTTTGT TCAC TTCTTACA GAAACA CC GAM262 BZW1 3' ACAAATGGGTATTCTTTCAT 1516 AAAC GTGAAAAGAATGT TTTGT TACTTTCTTATG AAACA GGT GAM262 FLJ10998 3' GACAAAGTCTCGCTCTGTCAC 1811 AA A TAA GTGA AGA TG ACTTTGTC CACT TCT GC TGAAACAG G_ C TC_ AA TG A_ GAM262 FLJ12409 3' GACAAAGTGATGTTTTCTTCCC 2137 AT GTG AAGAA TA ACTTTGTC

```
TAC TTCTT GT TGAAACAG
                      CC TT AG
GAM262 FLJ32356 3' ACAAAGCTTGATGTTTTCACT 2492
                                           GAATG A
                     AGTGAAAA TAA CTTTGT
                     TCACTTTT GTT GAAACA
                        GTA C
GAM262 GRP3
            3' GTTTACATCCTTCCCACT 1624
                                        AA A
                     AGTG AAG ATGTAAAC
                     TCAC TTC TACATTTG
                      CC C
GAM262 KIAA0210 3' GACACTGTTTACGTCCCTCCCA 1538
                                           AAA A
                                                    TT
        CT
                      AGTG AG ATGTAAAC TGTC
                     TCAC TC TGCATTTG ACAG
                      CC CC
                               TC
GAM262 MGC2477 3' GACAAAAGCAAGGCCCCTTTTC 2054
                                             AAT AAAC
        ACT
                      AGTGAAAAG GT TTTGTC
                     TCACTTTTC CG AAACAG
                        CC_ GAACGA
GAM262 MGC2742 5' ACAAAAGGGTATTTCTTTTCTC 2039
                                              T AA
                                          Т
        Т
                     AG GAAAAGAA GTA CTTT GT
                     TC CTTTTCTT TAT GAAA CA
                     Т
                         _ GG A
GAM262 MRF2
            3' GTTCTCATTCTTTTCACT 3056
                                           TA
                     AGTGAAAAGAATG AAC
                     TCACTTTTCTTAC TTG
                          TC
GAM262 P2RXL1 3' GAGGGCCACACTCTTTCAC 1213
                                            A AAA
                     GTGAAAAGA TGT CTTT
                     CACTTTTCT ACA GGAG
                        C CCG
GAM262 STK38L 3' GACAAAGTTTAACACCTTCACT 2844
                                           AAGAATG
                     AGTGAA
                           TAAACTTTGTC
                          ШШ
                     TCACTT ATTTGAAACAG
                       CCACA
GAM262 LOC151579 3' ACAAATGGGTATTCTTTTCAT 2859
                                              AAAC
                     GTGAAAAGAATGT TTTGT
                     TACTTTTCTTATG AAACA
                          GGT_{-}
GAM262 LOC51312 5' GACAAAATTCATTTTTTCA 1849
                                            TAAAC
```

TGAAAAGAATG TTTGTC

```
ACTTTTTTAC AAACAG
                         TTA__
GAM262 LOC91574 3' GACAAAGTTCTGTTTCTCAC 2751 AA TGTA
                    GTGA AGAA AACTTTGTC
                    CACT TCTT TTGAAACAG
                      __ TGTC
GAM263 MAB21L2 5' CACTACAAACAAACAAACC 1301
                                           CA_ C
                    GGTTTGTT TTGT GTG
                    CCAAACAA AACA CAC
                       ACA T
GAM263 LOC220672 3' CACGAATAAACAAACTTAA 2565
                                            CATTG
                    TTAGGTTTGTT TCGTG
                    AATTCAAACAA AGCAC
                         ATA__
GAM264 FLRT2 3' AACTTCACTCTACACTATA 1437
                                         ACAC A C
                    TATAGTGTA GA TG AGTT
                    ATATCACAT CT AC TCAA
                        ____ C T
GAM264 KDELR2 3' AACTTGCATTCCACTATA 1335
                                         TAACAC
                    TATAGTG GAATGCA GTT
                    ATATCAC CTTACGT CAA
GAM264 SMT3H2 3' AAACTGCAATTTGGTTCCAC 1341
                                         T A _
                    GTG AAC CGAAT GCAGTTT
                    CAC TTG GTTTA CGTCAAA
                      C A
                                          T A _
GAM264 LOC158997 3' AAACTGCAATTTGGTTCCAC 3230
                    GTG AAC CGAAT GCAGTTT
                    CAC TTG GTTTA CGTCAAA
                     C _ A
GAM265 APOC4 3' GTTCATACTTCTCCAATAAATA 841
                                         C AT T
        AA
                     TTTAT TATTG GG GTATGAAC
                    AAATA ATAAC CT CATACTTG
                      A CT T
GAM265 DKFZP434P0721 3' TTCATACATATATAGATA 2664
                                             TGATG
                    TATCTAT GTGTATGAA
                    ATAGATA TACATACTT
                       TΑ
GAM265 FLJ14082 3' TCATACACACAGATAAA 2129
                                         ATTGATG
                    TTTATCT GTGTATGA
```

```
AAATAGA
                               CACATACT
                        CA
GAM266 LMO7 3' AATAAACTTGCTGATGCATTT 1202
                                           TAAT T
                     AAATGC G CAAGTTTATT
                     TTTACG C GTTCAAATAA
                        TAGT
GAM266 LMO7
             3' AATAAACTTGCTGATGCATTT 1643
                                            TAAT T
                     AAATGC G CAAGTTTATT
                     TTTACG C GTTCAAATAA
                        TAGT
GAM266 CDV-1 3' AATAAACTTGGTACGTATTT 1466
                                           TAA GT
                     AAATGC T CAAGTTTATT
                     TTTATG A GTTCAAATAA
                        C TG
GAM266 KIAA1671 3' TTTGCACATCAGCATTTTA 2726
                     TAAAATGCT ATGT CAAG
                     ATTTTACGA TACA GTTT
                         C C
GAM266 SEMA5A 3' AAACCTTTGAAATTAGCATT 1075
                                             G __
                     AATGCTAAT TCAA GTTT
                     111111111 1111 1111
                     TTACGATTA AGTT CAAA
                         A TC
GAM266 LOC127133 3' AATAAATGGGAGTTAGCATTTT 3004
                                                 G AA
                      TAAAATGCTAAT TC GTTTATT
         Α
                     ATTTTACGATTG AG TAAATAA
                          GG
GAM266 LOC143154 3' AATTTGACATCACATTTTA 3052
                                            CTA
                     TAAAATG ATGTCAAGTT
                     ATTTTAC TACAGTTTAA
                        AC_
GAM266 LOC219294 3' AATTTGACATCACATTTTA 3587
                                            CTA
                     TAAAATG ATGTCAAGTT
                     ATTTTAC TACAGTTTAA
                        AC_{-}
GAM267 GARP
             3' TGGAGTTTGAGACTATGGAA 1221
                                              _ TGGA
                     TTCCGTAGTC CA TCCA
                     AAGGTATCAG GT AGGT
                          A TTG_
                                    2507
GAM267 FLJ30213 3' GATCATGGACCACAGAA
                                          CA
                                               G
                     TTC GT GTCCATG ATC
```

```
AAG CA CAGGTAC TAG
                      A C
GAM267 LOC1965103' GGTCCATGAACTAGGAA 3415 G C
                    TTCC TAGT CATGGATC
                    AAGG ATCA GTACCTGG
GAM267 LOC200220 3' GGTCCATGAACTAGGAA
                                         G C
                                   3444
                    TTCC TAGT CATGGATC
                     AAGG ATCA GTACCTGG
GAM267 LOC220930 3' GGTCATAGACTATGGAA 3591
                                           C AT
                    TTCCGTAGTC ATGG CC
                    AAGGTATCAG TACT GG
GAM268 ZNF161 3' ACTAGCAGAACTCTT
                               1359
                                        TAGT T
                    AAGAGTTT TG CTAGT
                    TTCTCAAG AC GATCA
GAM268 DKFZP566D193 3' ACTGAATAACTAAAATCTC 3353
                                                 C
                     GAG TTTTAGTTGT TAGT
                     CTC AAAATCAATA GTCA
                      Т
GAM268 LOC200574 3' GCTGACTACTAAAACTC 3450
                                           T T
                    GAGTTTTAGT GTC AGT
                    CTCAAAATCA CAG TCG
                        Т
GAM269 RAD50 3' TGTTGATAAATCCATCA 1240
                                            Т
                    TGA TGGATTTATCA CA
                     ACT ACCTAAATAGT GT
                      _ T
GAM269 RAD50 3' TGTTGATAAATCCATCA 2420
                                            Τ
                     TGA TGGATTTATCA CA
                     ACT ACCTAAATAGT GT
                           Т
GAM269 SMURF1 3' ATGATGTAAATCCACCCA 3564
                                        AA
                                             Т
                    TG TGGATTTA CATCAT
                     AC ACCTAAAT GTAGTA
                     CC
                                            Α _
GAM269 TRIM9 3' ATGAATGAAAAATCCATCCA 1611
                                        Α
                    TG ATGGATTT TCAT CAT
```

11 11111111 1111 111

```
AC TACCTAAA AGTA GTA
                      C
                          A A
GAM269 FLJ13902 3' AACGATGATGATGAACACA 2076
                                         GA
                     TG TTTATCATCATCGTT
                     AC AAGTAGTAGCAA
                      AC
GAM269 KIAA0650 3' AAACGATGATGATGTTAACC 3427
                                         ATT
                     GG TATCATCATCGTTT
                     CC GTAGTAGTAGCAAA
                      AATT
GAM269 MGC16075 3' AAACGATGATGCAGGCTATTCA 2277
                                             ATTTAT
                     TGAATGG CATCATCGTTT
                     ACTTATC
                            GTAGTAGCAAA
                        GGAC
GAM270 PAIP2 3' ACTGAAAATAGAATTGG
                                1687
                                       TATA
                     CCA TTTATTTTCAGT
                     GGT AGATAAAAGTCA
                      TA
GAM270 PIN4
            3' CTGAAAATATTGGGCATC 1282
                                       A ATATATT
                     GATG CC
                              TATTTTCAG
                     IIII II
                         |||||||
                     CTAC GG ATAAAAGTC
                      _ GTT_
GAM271 HLA-G 3' TCCTTCCCCAATCACCTT 900
                                          AAT
                     AAGGTGATTGG GGGA
                     TTCCACTAACC TCCT
                         CCT
GAM271 HRH2
            5' TTCATTCCCAACACCTTA 1984
                                         ATT
                     TAAGGTG GGAATGGG
                     ATTCCAC CCTTACTT
                       AAC
GAM271 KCNJ15 3' ATTTATTTAACCAATGACCTTA 916
                                         G AATG
                     TAAGGT ATTGG GGATAAAT
                     ATTCCA TAACC TTTATTTA
                       G AA
GAM271 C1orf8 5' ATCTCAGTCTCAATCACC 1161
                                         _ A
                     GGTGATTG GA TGGGAT
                     CCACTAAC CT ACTCTA
                        T G
GAM271 FLJ10738 3' ATCCCATCTGGGTCACTT 1798
                                          _TG A
                     AGGTGA T GA TGGGAT
```

```
TTCACT G CT ACCCTA
                       G GT _
GAM271 FLJ23511 3' ATCCACAATCCAATTACC 2239
                                           Α _
                     GGTGATTGGA TG GGAT
                     CCATTAACCT AC CCTA
                         A A
GAM271 GAB3
            3' ATTTCAGGGTTTCCAATCACC 2377
                                            GG
                     GGTGATTGGAA TG AT
                     CCACTAACCTT AC TA
                         TGGG TT
GAM271 ITPK1 3' CTCACCCCATCACCTTG 1484
                                         T AA
                     TAAGGTGAT GG TGGG
                     GTTCCACTA CC ACTC
                        CC
GAM271 TRIP-Br2 3' TCCCCCCCCATCACCTTA 1539
                                         T AAT
                     TAAGGTGAT GG GGGA
                     ATTCCACTA CC CCCT
                        C CC
GAM271 LOC152313 3' ATCCCCCTGATCCAATCACCT 3355
                                              ΑT
                     AGGTGATTGGA GGGAT
                     TCCACTAACCT CCCTA
                         AGTCC
GAM271 LOC256642 3' TTTAGGCCCCAATACCTTA 3701
                                          A AAT GA
                     TAAGGTG TTGG GG TAAA
                     ATTCCAT AACC CC ATTT
                           GG
GAM272 C22orf2 3' TTTTTTATTAAACGATGT 3655
                     ACGTC TTTAATAAAAA
                     TGTAG AAATTATTTTT
                       C
GAM272 LOC153277 3' ATACTTAATAAATGACGT 3369
                                            A AAAAA
                     ACGTCATTTA TA AGTAT
                     TGCAGTAAAT AT TCATA
                         Α_
GAM273 SH3BP4 3' CAGTGTGCAATTAGTCATTGAC 1506 G A
                                                 AG
        Α
                     TG CAAT ACTAATTG ATATTG
                     AC GTTA TGATTAAC TGTGAC
                     A C
                          \mathsf{G}_{-}
GAM273 UFD1L 3' CAACATCTTGGCTTTTAGTTAC 2973 G A
                                               ___ TG A
        TGGCA
                        TG CA TAACTAA T AGAT TTG
```

```
AC GT ATTGATT G TCTA AAC
                       G
                             TTC GT C
GAM273 FLJ20081 3' CAATACTCTCAATTATTAACCA 1736
                                             CAA C
                      TGG TAA TAATTGAGA TATTG
                      ACC ATT ATTAACTCT ATAAC
                                С
GAM273 KIAA1635 3' GTCCAACTATTTATTGCCA 2804
                                              CAA
                      TGGCAATAA TA TTG GAT
                      11111111 11 111 111
                      ACCGTTATT AT AAC CTG
                          TC
GAM273 PRO1257 5' CAATATCTCATAAGACTACTGC 1848
                                             A ACTAAT
                      GCA TA
                              TGAGATATTG
                      III II
                         CGT AT
                              ACTCTATAAC
                       C CAGAAT
GAM273 LOC153020 3' CTCAATCAGTATTGCCA
                                     3177
                                             AA
                      TGGCAATA CT ATTGAG
                      ACCGTTAT GA TAACTC
                         _ C
GAM274 BNC
             3' TGTTTCTGTTTCATATC
                                  851
                                         Т
                      GATATGA AACAGGAATA
                      CTATACT TTGTCTTTGT
GAM274 PROS1
              5' TGTCCTTGTTATCACTTC 3407
                                          TA
                                                Α
                      GA TGATAACAGG ATA
                      CT ACTATTGTTC TGT
                       TC
                             С
GAM274 FLJ20147 3' ATGTTGTAATTGTCATATC 1738
                                              CAGGA
                      GATATGATAA ATAACAT
                      CTATACTGTT
                                  TGTTGTA
                          AA
GAM274 KIAA0737 3' ATGTTATTCCCCATTATCA 1562
                                            CA_
                      TGATAA GGAATAACAT
                      ACTATT CCTTATTGTA
                        ACC
GAM275 CA4
            3' AGGCATGATTAAAATATGGAC 769
                                              T TGAG
                      GTCCATATTTTA TC GCCT
                      CAGGTATAAAAT AG CGGA
                           T TA__
GAM275 LU
            3' AGGCCCCAGAATAGCTCCTGGA 1227
                                             TATT
         С
                       GTCCA TTATTCTG GGCCT
```

```
CCTC
                              C
GAM275 FNBP3 5' AGGAGTTACAAAATATGGAC 3155
                                           ATTC GG
                     GTCCATATTTT TGA CCT
                     CAGGTATAAAA ATT GGA
                         C___ GA
GAM275 SAP18 3' AGCCCTTCTGTAAAATATG 1258
                                           TCT C
                     CATATTTTAT GAGG CT
                     GTATAAAATG TTCC GA
                         TC C
GAM275 SCYA4 3' CTTTAAAATAAAATGCAGAC 978
                                         CA
                                              С
                     GTC TATTTTATT TGAGG
                     CAG GTAAAATAA ATTTC
                      AC
                           Α
GAM275 SLC6A14 3' CGTGATAAATATATGGAC 1368
                                              C
                     GTCCATAT TTTATT TG
                     CAGGTATA AAATAG GC
                        T T
GAM275 LOC158629 5' CCCAGGAAAACATGGAT
                                   3393
                                          A TA A
                     GTCCAT TTT TTCTG GG
                     TAGGTA AAA AGGAC CC
GAM275 LOC1631155' AGGCCTCAGTTTATATTGAC 3243
                                          C TTTATT
                     GTC ATAT CTGAGGCCT
                     CAG TATA GACTCCGGA
                      T TTT
GAM275 LOC200339 3' TCTTAGAAGAAACATAGACG 3476
                                           CAA
                     CGTC AT TTTT TTCTGAGG
                     GCAG TA AAAA AAGATTCT
                      A C G
GAM275 LOC200953 5' AGGCCTCAGAGGGCCCTAGGGA 3481
                                             ATATTTTA
         C
                     GTCC
                            TTCTGAGGCCT
                        Ш
                     CAGG
                            GAGACTCCGGA
                      GATCCCGG
GAM275 LOC255527 5' AGGCCCACATAAAATACCAAC 3718
                                           CCA
                                                 TC A
                     GT TATTTTAT TG GGCCT
                     CA ATAAAATA AC CCGGA
                     ACC
                            C_ _
GAM275 LOC51334 3' CCTCAGAATGATGAAAAATATG 1706
                                           C
         AATG
                       CGT CATATT TTATTCTGAGG
```

CAGGT GATAAGAC CCGGA

```
A AAAGT
GAM275 LOC92710 3' AGGCCTCAAAACAATGAAA 2884
                                          С
                    TTTTATT TGAGGCCT
                    AAAGTAA ACTCCGGA
                       CAAA
GAM276 TSN 3' TACACTTGGGGAGATTTGCCA 1136
                                          GCAA C
                    TGGCAAATCT TCA TGTA
                    ACCGTTTAGA GGT ACAT
                        GG TC
GAM276 FLJ20039 3' TACAGTGATAGCAACTTTCCA 1734
                                         C TC A
                    TGG AAA TGC ATCACTGTA
                    ACC TTT ACG TAGTGACAT
                     CA A
GAM276 KIAA1204 3' ACAGGGCCAGCTTGCCATA 2849
                                         AT CAA A
                    TATGGCAA CTG TC CTGT
                    ATACCGTT GAC GG GACA
                       C_ C__ _
                                          CA _ AA
GAM276 OR2C3 3' TACAGTGAGGCGAGATTCACCA 3023
                    ATGG AATCT GC TCACTGTA
        Т
                    TACC TTAGA CG AGTGACAT
                     AC G G
GAM276 QKI 3' TACCTTGATGCAAATTTGCCA 2722
                                         C A CT
                    TGGCAAAT TGCA TCA GTA
                    ACCGTTTA ACGT AGT CAT
                       A TC
GAM276 TIP120A 3' ACAGTAACAATTTGCCA
                                        C CAATC
                               1828
                    TGGCAAAT TG ACTGT
                    ACCGTTTA AC TGACA
                       _ AA___
GAM276 LOC90750 3' CAGTGGTCCAGACTTGCCA 2673
                                          A CA
                    TGGCAA TCTG ATCACTG
                    ACCGTT AGAC TGGTGAC
                      C
GAM276 LOC92912 3' ACAGTAATTTTTGCCATG 2898
                                          TCTGC C
                    TATGGCAAA AAT ACTGT
                    GTACCGTTT TTA TGACA
                                        AA TA_
GAM277 BACH2 3' ATTTCTGGTGAGTCAGTCCAC 1962
                    GT ATT TCACCAGAAAT
```

GTA GTATAA AGTAAGACTCC

```
CA TGA AGTGGTCTTTA
                     CC CTG
GAM277 DUSP11 3' TTTGCTGATAAATTTGCAGT 1039 C
                                              С
                    AC GTAAATTTATCA CAGA
                    TG CGTTTAAATAGT GTTT
                     Α
                           C
GAM277 EPS8
            3' ATTTCTGGTAATAAGAAGC 1114
                                       AAA C
                    GT TTTAT ACCAGAAAT
                     CG GAATA TGGTCTTTA
                     AA A
GAM277 TK1
           3' TCTGGTGATGGTTTCCACAGG 1005
                                        _ AAAT
                    CC GT TTATCACCAGA
                     GG CA GGTAGTGGTCT
                     A CCTTT
GAM277 TRPC6 3' ATTTCTGGGAGCATTTAC 1134
                                         TTA A
                    GTAAAT TC CCAGAAAT
                    CATTTA AG GGTCTTTA
                       CG_ _
GAM277 KIAA0924 3' TTCTGAATAAATTTACAGT 1577
                                             CAC
                    AC GTAAATTTAT CAGAA
                     TG CATTTAAATA GTCTT
                          Α
GAM277 KIAA1946 3' ATTTTTGGGTGATGAATTTACA 3247 C
        GT
                      AC GTAAATTTATCACC AGAAAT
                     TG CATTTAAGTAGTGG TTTTTA
                     Α
                            G
GAM277 OSBPL3 3' ATTTCTGGTGAATTAC
                               1635
                                       ATTTA
                    GTAA TCACCAGAAAT
                     CATT AGTGGTCTTTA
                      Α
GAM277 PSKH1
             3' TCTGGTGGAGGGCCATGG 2810
                                         AAA A
                     CCGT TTT TCACCAGA
                     GGTA GGA GGTGGTCT
                      CCG _
GAM277 URB
            5' ATTTCTGGGACTGAATCCAGG 3162
                                        GTAA _ A
                    CC ATTTA TC CCAGAAAT
                     GG TAAGT AG GGTCTTTA
                     ACC_ C
GAM278 PLS3
            3' TAGAAGAAAATGTACCTTA 1174
                                             CA
                    TAAGGTAC TTTTTCT TA
```

11111111 1111111 11

```
ATTCCATG AAAAAGA AT
                         Т
                            AG
GAM278 LOC121227 3' TTATGCAAAAAGTATCTTA 2989
                                                CT
                      TAAGGTACTTTTT CATAA
                      ATTCTATGAAAAA GTATT
                           AC
GAM278 LOC145786 3' ATTATGAGAAAGGCC
                                   3277
                                          ACT
                      GGT TTTTCTCATAAT
                      111 111111111111
                      CCG GAAAGAGTATTA
GAM278 LOC149650 3' TTAAGAGAAAAAGTACC 3136
                                              _ A
                      GGTACTTTTT CTC TAA
                      CCATGAAAAA GAG ATT
                          A
GAM278 LOC222223 3' TTATCACATGGTCAAGTACCTT 3641
                                               TT TCATA
         G
                      TAAGGTACTT TC ATAA
                      GTTCCATGAA GG TATT
                          CT TACAC
GAM279 OGT
            5' GGTAATTTATAGAACAAA 1042
                                           CC
                      TTTGTTCTAT AA TACC
                      AAACAAGATA TT ATGG
                          TA
GAM279 TNFRSF10B 3' TTTATAGGTAGTTGTTTACA 1065
                                            TCTAT
                      TGT CAACTACCTATAAA
                      ACA GTTGATGGATATTT
                       \mathsf{TTT}_{\_}
GAM279 BA108L7.2 3' TTATAGACACTAGTAGGACAAA 2180
                                              CAACTAC
                      TTTGTTCTAT CTATAA
                      AAACAGGATG
                                   GATATT
                          ATCACA
GAM279 FLJ12598 5' TTTACAGGTACCATGCAGAGAA 2086
                                               AT_ AC_ A
         CAAA
                        TTTGTTCT CA TACCT TAAA
                      AAACAAGA GT ATGGA ATTT
                         GAC ACC
GAM279 FLJ23071 3' GGTAATTTATAGAACAAA 2144
                                             CC
                      TTTGTTCTAT AA TACC
                      AAACAAGATA TT ATGG
                         ΤА
GAM279 LOC91266 5' TATAGGTTAGGAACAAA
                                    2720
                                            ATCAACT
```

TTTGTTCT ACCTATA

```
AAACAAGG
                              TGGATAT
                       AT_
GAM280 CDH11 5' CCGCTGACTTGTGAATGGGA 2339 A TG AAAA
                    TCC ATT TAA TCAGCGG
                    AGG TAA GTT AGTCGCC
                     G GT C
GAM280 IGF1 3' CCTGATGCAAATTGGA
                               761
                                       AAAAA C
                    TCCAATTTGT ATCAG G
                    AGGTTAAACG TAGTC C
GAM280 FKBP9 3' CCGCTAATTTTTGTATTTTTGG 3632
                                        TTTGTA C
                    CCAA AAAAAT AGCGG
                    GGTT TTTTTA TCGCC
                     TTTATG A
                                        AAAAAATC
GAM280 FLJ23045 3' TGCTTGACAAATTGGAT
                                2082
                    ATCCAATTTGT AGCG
                    TAGGTTAAACA
                                 TCGT
                        GT
GAM280 FLJ30567 3' CCTGATTTGAATTGG
                               2510
                                       GTAAA
                                              C
                    CCAATTT AAATCAG G
                    GGTTAAG TTTAGTC C
                                       TA ___
GAM280 FLJ30678 5' CCGCTGATTCCTTTCGTAA 2490
                    TTG AAA AATCAGCGG
                    AAT TTT TTAGTCGCC
                     GC CC
GAM280 KIAA1676 3' CCACTGTGGGAACCAAATTGGA 3590
                                           TAAAAAAT C
        Т
                    ATCCAATTTG CAG GG
                    TAGGTTAAAC
                                GTC CC
                        CAAGGGT A
GAM280 KLF3
           3' CCGCCAATTTTTTACAAAT 1693
                                          CA
                    ATTTGTAAAAAAT GCGG
                    TAAACATTTTTTA CGCC
                         AC
GAM280 LOC146952 5' CCACTGATTTTTTTTTTCTGGA 3286
                                          ATTTGT C
                    TCCA AAAAAATCAG GG
                    AGGT TTTTTTAGTC CC
                     CTTTT_
GAM280 LOC81569 3' CCACTGATTTTCATTGG 2616
                                        TTGTA
                                                C
                    CCAAT AAAAATCAG GG
```

```
GGTTA TTTTTAGTC CC
                       C__
                              Α
GAM280 LOC83690 3' CCACTGATTTTTTTTAAAT 2204
                                         Τ
                                               С
                    ATTTG AAAAAATCAG GG
                    TAAAT TTTTTTAGTC CC
                      TT
                            Α
GAM281 ASPH
            3' AAAAAAGCATGGAAAATG 1896
                                        С
                                          Α
                     CATTT CCATGT TTTTT
                     GTAAA GGTACG AAAAA
                      Α
                          Α
GAM281 ASPH
            3' AAAAAAGCATGGAAAATG 2252
                     CATTT CCATGT TTTTT
                     GTAAA GGTACG AAAAA
                       Α
                          Α
GAM281 CABC1 3' ATAAAAATGCTCATGGGAAGTG 1908
                                              TATTT
                     TCATTTCCCATG TTTTTAT
        Α
                     AGTGAAGGGTAC AAAAATA
                         TCGT
                                            CC A
GAM281 SLC6A12 5' ATAAAAAGGGACATGAAAATGA 987
                    TCATTT CATGT TTTTTTTAT
                     AGTAAA GTACA GGGAAAAATA
                       A_
GAM281 CSAD
            3' AAAATACATAGGAAAAGA 1654
                                      A C
                    TC TTTCC ATGTATTTT
                     AG AAAGG TACATAAAA
                     A A
GAM281 DICER1 3' AAAAAAAATTAAGGGGAAA 2151
                                          ATGT
                    TTTCCC ATTTTTTT
                     AAAGGG TAAAAAAA
                       GAAT
GAM281 KIAA1025 3' AAAAAAAGGGGAAATGG
                                  2675
                                          ATGTA
                     TCATTTCCC
                              TTTTTTT
                     GGTAAAGGG GAAAAAA
GAM281 KLF12 3' AAAAAAAATACATGGGAA 1372
                    TTCCCATGTATTTTTTT
                     AAGGGTACATAAAAAAAA
GAM281 NFAT5 3' AAAAAGTGTCAAAGGAAATGA 2451
                                           CA _
                    TCATTTCC TG TATTTTTT
```

```
AGTAAAGG AC GTGAAAAA
                        AA T
GAM281 LOC170261 3' ATAAAAAAGGTACAAAAAGTGA 3256
                                            CCCA
                    TCATTT TGTATTTTTTAT
                    AGTGAA ACATGGAAAAAATA
                       AA
GAM281 LOC222602 3' ATAAAAAAACAAAAATGGAAAT 3583
                                             CATGTAT
        GA
                      TCATTTCC
                              TTTTTTTAT
                    AGTAAAGG
                               AAAAAAATA
                       TAAAAAC
GAM281 LOC257051 3' ATAAAAAAGGTACAAAAAGTGA 3703
                                            CCCA
                    TCATTT TGTATTTTTTAT
                    AGTGAA ACATGGAAAAAATA
                       AA
                                          CC
GAM282 FGF7 3' TATAAAGAACCCAGTTCCA 886
                    TGGAATTGGG TC TTATA
                    ACCTTGACCC AG AATAT
                        A
GAM282 MTNR1B 3' TGGGGCAGAAGAGCCCAACTCC 1262
                                           Α
                                               C ATA
                    GGA TTGGGCTC TT CCA
                     CCT AACCCGAG AG GGT
                          A ACGG
GAM282 SEPX1 3' TGTGAGGCCCAATTCCA 1681
                                          TC
                    TGGAATTGGGC CTTATA
                    ACCTTAACCCG GAGTGT
                                        A G CCT A
GAM282 PPFIA4 3' TGGCATAAGCTGAATCCCA 2883
                    TGG ATT GGCT TAT CCA
                    ACC TAA TCGA ATA GGT
                     C G ___ C
GAM282 LOC145231 3' CTTGACACGAGACTAGTCCCAA 3274
                                              _ C__ ATAC
        TTCCA
                       TGGAATTGGG CT CTT CAAG
                    ACCTTAACCC GA GAG GTTC
                        T TCA CACA
GAM283 CAV3
            3' AATGCCCAGTACTGCCATTTGA 2329
                                           ATCC
```

TCAAATG TGTTGGGCATT

AGTTTAC ATGACCCGTAA

CAAATGAT CTG TG CATT

C T GG

CGTC

5' AATGACGTCAGAATCATTTG 1509

GAM283 HOXC4

```
GTTTACTA GAC GC GTAA
                        A T A_{-}
GAM283 MYCL1 3' CTTTTACACGACCATTTGATA 1203
                                           A C T
                     TATCAAATG TC TGT GGG
                     ATAGTTTAC AG ACA TTC
                        C C TT
GAM283 FLJ20666 5' AACAGGAGAATCACTTGATG 1762
                                           Α ___
                     TATCAA TGA TCCTGTT
                     GTAGTT ACT AGGACAA
                       C AAG
GAM283 KIAA1001 3' AATGCCTGGCAAATTACCTGA 1599
                                           AA CC TG
                     TCA TGAT TGT GGCATT
                     AGT ATTA ACG CCGTAA
                      CC A GT
GAM283 PGRMC2 3' AACAGAAAGATCATTTGA 1286
                     TCAAATGATC CTGTT
                     AGTTTACTAG GACAA
                         AAA
GAM283 LOC152286 3' AATGCAGGGAGACATTTGATA 3354
                                              A GTTGG
                     TATCAAATG TCCT GCATT
                     ATAGTTTAC AGGG CGTAA
                        AG A
GAM283 LOC158549 3' AATGCTTAGGAATCATTTTATA 3392
                                           С
                                                 TTG
                     TAT AAATGAT CCTG GGCATT
                     ATA TTTACTA GGAT TCGTAA
                      Т
                          Α
GAM284 DKFZp761G0313 3' AAGATAAGCTATTATTAA 2731
                                               TΑ
                     TTAATAAT CTTATCTT
                     AATTATTA GAATAGAA
                        TC
GAM285 NRCAM 3' CAGCATGCCAACAGTAATA 1170
                                           A T__
                     TATTATT TTGGC CTG
                     ATAATGA AACCG GAC
                        C TAC
GAM285 C22orf23 3' TGATTAACTGGCCAATAA 2259
                                           C__
                     TTATTGGCT TGATCA
                     AATAACCGG ATTAGT
                        TCA
GAM285 SARM
             3' GACAGCGCCAATAACAATA 1609
                                         Α
                                             T A
                     TATT TTATTGGC CTG TC
```

1111 11111111 111 11

```
ATAA AATAACCG GAC AG
                      С
                           C _
GAM285 LOC219918 3' CGGTGGTTAAAACAACAATAAT 3529
                                            A GCTC
         Α
                     TATTATT TTG TGATCACCG
                     ATAATAA AAC ATTGGTGGC
                        C AAA
GAM286 FABP5 3' TTTATCATAAACATTTTACA 828
                                        T C
                     TGTAAAAT TTTGT GATAAA
                     ACATTTTA AAATA CTATTT
GAM286 ZHX1
            3' TTGACCAAAAATTTTACA 1367
                     TGTAAAATTTTTG TCGA
                     ACATTTTAAAAAC AGTT
GAM286 KIAA0981 3' TTTGTGGCAAAAATTTTCA 2599 T
                                              G
                     TG AAAATTTTTGTC ATAAA
                     AC TTTTAAAAACGG TGTTT
GAM286 KIAA1615 3' ATTTTTATAAGAAAATTTTAC 2829
                                            GTCG
                     GTAAAATTTTT ATAAAAAT
                     CATTTTAAAAG TATTTTTA
                         AA
GAM286 SGP28 3' TTTTTATCTGCATAAATTTTAC 1271
                                            T C
                     TGTAAAATTT TGT GATAAAAA
         Α
                     ACATTTTAAA ACG CTATTTTT
                         T T
                                              G T
GAM286 LOC201973 3' TTTTTTGAGAAAAATTTTGCA 3456
                     TGTAAAATTTTT TCGA AAA
                     ACGTTTTAAAAA AGTT TTT
                         G T
GAM287 LOC1462373' CGCACGCTCAGCAGGCATGA 3283
                                            A CACCGA
                     TCGT CC GAGCGTGTG
                     AGTA GG CTCGCACGC
                      C ACGA
```

GAM287 LOC255146 5' CACACGCTCCCGCCAGCGA 3679 ACCCAC A

TCGT CG GAGCGTGTG

|||| || |||||||||

AGCG GC CTCGCACAC

ACC___ C

GAM288 ATBF1 5' CGTACTGGGTGCAATGAA 1336 A

TTCGTTGTAT TAGTACG

	AAGTAACGTG GTCATGC
GAM289 FMR2	G 3' GCATCAGTGTTTTTCAACTCC 889 ATT _ C GGAG AAAAATA TGA GC CCTC TTTTTGT ACT CG
GAM289 SF1	CGGAGATTAAAAA ACGC
GAM289 BAL	TGGGG 3' GCAGTTGTTCTTTAATCTCC 2201 AAT TG _ GGAGATTAAA A AC GC CCTCTAATTT T TG CG CT GT A
GAM289 BTN3A	A1 3' ATATTTTAATCCCGTTA 1355 A TAACGG GATTAAAAATAT ATTGCC CTAATTTTTATA
GAM289 PDE4I	OIP 3' CGTCATATTCTCAACAGTTTCT 1512 AAA GGAGATT AATATGACG TCTTTGA TTATACTGC CAACTC
GAM289 LOC20	ODDEST 3' GCGAGTGCCTGTAATCTCCG 3447 AAAA GA CGGAGATTA TAT CGC GCCTCTAAT GTG GCG GTCC A_
GAM290 CDK10	3' CGGAAGCAGCCCTACAACAAC 2354 TTGCGA GTTGTTGT CTGCTTCCG CAACAACA GACGAAGGC TCCC
GAM290 COL1A	A1 3' CGGAAACAGACAAGCAAC 704 CGA C GTTGTTTG CTG TTCCG CAACGAAC GAC AAGGC A A
GAM290 ESPN C	3' AAGCTGCTGACGCAAACAACAA 2210 ACT GTTGTTGTTTGCG GCTT

AGTCGT

GTTGTTGTTT GC ACTG

___ G

GAM290 GRIA1 3' CAGTGCCAAAAACAACAAC 779

```
AAC _
GAM290 PLAG1 3' AAGCAGAAAACAAAAACAAC 942 G CGA
                    GTTGTT TTTG CTGCTT
                    CAACAA AAAC GACGAA
                      _{-} AAAA
GAM290 SORCS1 3' TCAGAAGTTCCAAACAGCAAC 2345
                                        C CT C
                    GTTGTTGTTTG GA GCTTC GA
                    CAACGACAAAC CT TGAAG CT
GAM290 BM046 3' AAGCAAGACAAC
                               1830
                                        GCGAC
                    GTTGTTGTTT
                               TGCTT
                    CAACAACAGA ACGAA
GAM290 KLF12 3' AAGCAGTTGAGTAACAGCAAC 1373
                                          TG
                    GTTGTTGTT CGACTGCTT
                    CAACGACAA GTTGACGAA
                       TGA
GAM290 PSMA6 5' CGGAAGCAGTCGCTGCAAC 2880
                                         TT
                    GTTGT GCGACTGCTTCCG
                    CAACG CGCTGACGAAGGC
                      T_
GAM290 LOC157292 5' CAGCTCAAAAACAACAAC 3377
                                           GC
                    GTTGTTGTTT GA CTG
                    CAACAACAAA CT GAC
                        AA C
GAM291 CELSR3 3' TCCCCAGTGGTGGGTG 825
                                      TTA
                    CACCCAT CA CTGG GA
                    GTGGGTG GT GACC CT
                       _ _ C
GAM291 CMAR
            5' CTCCACTTGGAATGGGTACCAC 1195 AC
                                               ATC
                     TGTG ACCCATTC TGGAG
                    ACAC TGGGTAAG ACCTC
                     CA
                          GTTC
                                      _ ACCCA
GAM291 FCER2 3' TCTCCAGATGAGAGTACAC 881
                    GTG AC TTCATCTGGAGA
                    CAC TG GAGTAGACCTCT
                     A A_{\underline{\phantom{A}}}
                                       \_ ACCCA
GAM291 FCER2 3' TCTCCAGATGAGAGTACAC 882
                    GTG AC TTCATCTGGAGA
```

CAACAACAAA CG TGAC

```
CAC TG GAGTAGACCTCT
                     A A
GAM291 FCER2 3' TCTCCAGATGAGAGTACAC 883 _ ACCCA
                   GTG AC TTCATCTGGAGA
                   CAC TG GAGTAGACCTCT
                    ΑΑ
GAM291 MEN1 3' CTCCAGAGTGGGTGTCCA 3601 T
                                          TCA
                   TG GACACCCAT TCTGGAG
                   AC CTGTGGGTG AGACCTC
GAM291 NCSTN 3' TTCTCCAGGCCCTCAGATGGCA 2979
                                       ACAC CA
        CA
                    GTG CCATT TCTGGAGAA
                   CAC GGTAG GGACCTCTT
                      ___ ACTCCC
GAM291 RBM10 3' TTCTCCACATGTTGGGTGTCCA 1235 T TT C
                   TG GACACCCA CAT TGGAGAA
                   AC CTGTGGGT GTA ACCTCTT
                       T_ C
GAM291 TNFSF8 3' GGATGAATGGATGTCCCA 812 T C
                   TG GACA CCATTCATCT
                   AC CTGT GGTAAGTAGG
                    C A
GAM291 YES1 3' TCCTTATGGGGATGGGTGCCAC 1210 A
                                            ATCT
                    TGTG CACCCATTC GGA
        Α
                   ACAC GTGGGTAGG
                                   CCT
                     С
                         GGTATT
GAM291 ZNF256 5' TTCTCCACAGCGGGTGTCACA 1247
                                         ATTCATC
                   TGTGACACCC TGGAGAA
                   ACACTGTGGG ACCTCTT
                       CGAC
GAM291 BAT8 3' TCCCCAGCATGGATGGCCACA 1325
                                      ACAC
                   TGTG CCATTCAT CTGG GA
                   ACAC GGTAGGTA GACC CT
                     C__ C C
GAM291 CPLX1 3' TCTCCGGATGGAATCACA 1318 CACCCA
                   TGTGA TTCATCTGGAGA
                   ACACT AGGTAGGCCTCT
                     \mathsf{A}_{\_}
                                              CCCA_ T
GAM291 DKFZP566K0524 3' TTCCAGTGAAACAGATGTTACA 2855
                   TGTGACA TTCA CTGGAG
```

```
ACATTGT AAGT GACCTT
                       AGACA _
GAM291 FLJ12891 3' TCTCCAGGGCCACAACTGTCAC 2117 CCCATTCA
                    TGTGACA
                             TCTGGAGA
                    ACACTGT GGACCTCT
                       CAACACCG
GAM291 GR6
           3' CCTGAATGAATGGGTGTCAC 1396
                                            _ T
                    GTGACACCCATTCAT C GG
                    CACTGTGGGTAAGTA G CC
                          ΑТ
GAM291 KIAA0455 3' CAGATGAATAGTATCACA 2947
                                        C CC
                    TGTGA AC ATTCATCTG
                    ACACT TG TAAGTAGAC
                      ΑА
GAM291 KIAA0513 3' TTCCCTGCAATGGGTGCACA 1536 A TCT
                    TGTG CACCCATT CA GGAG
                    ACAC GTGGGTAA GT CCTT
                         C C__
GAM291 KIAA1655 5' CTCTGAGAAGAGTGTCACA 2753
                                          CCA A T
                    TGTGACAC TTC TC GGAG
                    ACACTGTG AAG AG TCTC
                       AG_ _ _
GAM291 SCAND2 3' TTCCCCAGCCAGATGGGGTCAC 2338
                                           A CAT A
                    TGTGAC CCCATT CTGG GAA
        Α
                    ACACTG GGGTAG GACC CTT
                         ACC C
GAM291 WDR5B 3' TCTCCACGTCCAGGTGTACACA 1878
                                          CATTC C
                    TGTG ACACC AT TGGAGA
                    ACAC TGTGG TG ACCTCT
                     A ACC C
GAM291 LOC146330 5' TCTCCAAGAAGGGTGTCA 3088
                                          A ATC
                    TGACACCC TTC TGGAGA
                    ACTGTGGG AAG ACCTCT
                       _ A__
GAM291 LOC148181 5' CTCCAGACCCAGATGGTGTCTC 3117 T C CA__
        Α
                    TG GACACC ATT TCTGGAG
                    AC CTGTGG TAG AGACCTC
                     T _ ACCC
GAM291 LOC150271 5' TCTCCAGACTGGTGACACA 3326
                                         A CATTCA
                    TGTG CACC TCTGGAGA
```

```
ACAC GTGG AGACCTCT
                     A TC___
GAM291 LOC150605 5' TCTCCGGTGGAACCAGTGTCAC 3331 CCA T
                    TGTGACAC TTCA CTGGAGA
                    ACACTGTG AGGT GGCCTCT
                       ACCA _
GAM291 LOC153277 3' AGATAAATGTGTGTCACA 3368
                                          C C
                    TGTGACAC CATT ATCT
                    ACACTGTG GTAA TAGA
                       T A
GAM291 LOC154990 5' CTCCAGACCCAGATGGTGTCTC 3196 T C CA
        Α
                    TG GACACC ATT TCTGGAG
                    AC CTGTGG TAG AGACCTC
                    T ACCC
GAM291 LOC158014 5' TTCTCCAGATAAGAAAATCACA 3209 CACCCA C
                    TGTGA TT ATCTGGAGAA
                    ACACT AA TAGACCTCTT
                      AAAAG_ _
GAM291 LOC158056 5' TCTCCAGGCCCCAGGTGCCAGC 3210
                                           GA CATTCA
                    TGT CACC TCTGGAGA
                    ACG GTGG GGACCTCT
                     ACC ACCCC
GAM291 LOC202908 3' CTCCAGACCCAGATGGTGTCTC 3462 T C CA
                    TG GACACC ATT TCTGGAG
        Α
                    AC CTGTGG TAG AGACCTC
                    T _ ACCC
GAM291 LOC220143 5' CTCCCGAGATGGTGTCACA 3610
                                         CAT A T
                    TGTGACACC TC TC GGAG
                    ACACTGTGG AG AG CCTC
                       T__ C
GAM291 LOC220143 5' CTCCCGAGATGGTGTCACA 3611
                                       CAT A T
                    TGTGACACC TC TC GGAG
                    ACACTGTGG AG AG CCTC
                       T__ C
GAM291 LOC222057 3' CTCCAGACCCAGATGGTGTCTC 3576 T C CA__
        Α
                    TG GACACC ATT TCTGGAG
                    AC CTGTGG TAG AGACCTC
                    T _ ACCC
GAM291 LOC255096 3' CTCATGGATGAGTACCACA 3744
                                         AC C
                                               CTG
                    TGTG AC CATTCAT GAG
```

```
ACAC TG GTAGGTA CTC
                     CA A
GAM291 LOC255975 5' CTCCAGACCCAGATGGTGTCTC 3686 T C CA
                    TG GACACC ATT TCTGGAG
                    AC CTGTGG TAG AGACCTC
                    T _ ACCC
GAM291 LOC256878 3' CTCCAGACCCAGATGGTGTCTC 3720
                                          T C CA
                    TG GACACC ATT TCTGGAG
                    AC CTGTGG TAG AGACCTC
                    T ACCC
GAM291 LOC51333 3' TTCTCCAGGCTCAGGTGCCA 1705 A CATTCA
                    TG CACC TCTGGAGAA
                    AC GTGG GGACCTCTT
                    C ACTC
GAM291 LOC89919 3' TCAGAACAGATGGATGTCACA 2580
                                         C CA
                    TGTGACA CCATT TCTGG
                    ACACTGT GGTAG AGACT
                      A ACA
GAM292 IL2RA 3' TCCACCCTATATGTAGTATAAA 739 _ CA CAA
                     TCTTT TAC ACA AGGGTGGA
        GA
                    AGAAA ATG TGT TCCCACCT
                     T A_ ATA
GAM292 INPP5D 3' CCATCGTGCTGGTAGAAGA 3263
                                          A AAAG
                    TCTTTTACCA CAC GGTGG
                    AGAAGATGGT GTG CTACC
                       С
GAM292 PLXNA1 3' TCCACCCTTGCCCTCAGCAAGA 2941
                                         ACCAACACA
        GA
                     TCTTTT AAGGGTGGA
                    AGAGAA TTCCCACCT
                      CGACTCCCG
GAM292 PRKCN 3' TCTTTAAGTCGTGTTTGTAAAA 1253
                                          C AAAGGGT
        GA
                     TCTTTTAC AACAC GGA
                    TCT
                    AGAAAATG TTGTG
                       T CTGAATT
GAM292 BHMT
            3' CCACTTTTCTACCAGTAAAAGA 849
                                         CAACACA
                    TCTTTTAC AAGGGTGG
                    AGAAAATG
                              TTTTCACC
                      ACCATC_
GAM292 DKFZP434B044 3' CCACCCCTTTAAGGAGTTGGTA 2211
                                               AC___ _
        AAA
                     TTTTACCAAC AAAGGG TGG
```

```
AAAATGGTTG TTTCCC ACC
                        AGGAA
                               C
GAM292 FLJ10458 3' CCCCGTGTTGGTAAGAGA 1777
                                            AAA
                    TCTTTTACCAACAC GGG
                    AGAGAATGGTTGTG CCC
                          С
GAM292 FLJ20272 3' CACCTGCTGGTAAAAGA 1744
                                          ACACAAA
                    TCTTTTACCA
                                GGGTG
                    AGAAAATGGT
                                TCCAC
                        CG
GAM292 FLJ23598 3' TCCACCCTGGGTAATAAAAGA 3665
                                           CCAAC AA
                    TCTTTTA AC AGGGTGGA
                    AGAAAAT TG TCCCACCT
                       AA GG
GAM292 KIAA1755 3' CCACCCTTCATACTGGCCAGAG 2595
                                          TA ACACA
                    CTTT CCA AAGGGTGG
                    GAGA GGT TTCCCACC
                      CC CATAC
GAM292 MGC21621 3' CCCTAGGCTGGTTGGTAAAAGA 2508
                                               ΑΑ
                    TCTTTTACCAAC CA AGGG
                    AGAAAATGGTTG GT TCCC
                         CGGA
GAM292 MGC3077 3' TCCTTGCTCTGGTAAAAGA 2048
                                           ACACA
                    TCTTTTACCA AAGGG
                    AGAAAATGGT TTCCT
                        CTCG
GAM292 MGC4707 3' CCCTCATGTCTGGTAAAA 2055
                                          CAA
                    TTTTACCA ACA AGGG
                    AAAATGGT TGT TCCC
                       C AC_
GAM292 MGC5149 3' TCCTCATTGGTAAAAGA
                                           CACAA
                                  2940
                    TCTTTTACCAA AGGG
                    AGAAAATGGTT TCCT
                        AC_{-}
GAM292 RAB3IL1 3' CAGGCTTTGTTGGTAAAA 1448
                                           CA GG
                    TTTTACCAACA AAG TG
                    AAAATGGTTGT TTC AC
                         __ GG
GAM292 LOC119369 5' TCCACCCTATTTCTGGAAAAA 3026
                                          A ACACAA
                    TTTT CCA AGGGTGGA
```

```
AAAA GGT TCCCACCT
                      A CTTTA
GAM292 LOC150035 5' TTGTAGTACTGGTAAAAGA 3321
                    TCTTTTACCA AC ACAA
                    AGAAAATGGT TG TGTT
                        CA A
GAM292 LOC219649 5' TCCACCCTTTGTGCTTTGGT 3586
                    ACCAA CACAAAGGGTGGA
                    TGGTT GTGTTTCCCACCT
                      TC
GAM292 LOC221688 5' TCCAACCACATTGGTAAAA 3617
                                           CACAAA G
                    TTTTACCAA
                             GG TGGA
                    AAAATGGTT CC ACCT
                        ACA A
GAM293 RLBP1 5' CAGGTACCAGGTAGCCCCA 729
                                           CGACA G
                    TG GGCTACCT TAC TG
                    AC CCGATGGA ATG AC
                     С
                         CC___ G
GAM293 MGC23280 3' GCTGGTATCGAGGTGCCCCA 2493
                                        A T CA GT
                    TG GGC ACCTCGA TAC GT
                    AC CCG TGGAGCT ATG CG
                     C _ GT
GAM293 LOC113523 3' TATGCCGAAATAGCTTCA 2966
                                          CC A
                    TGAGGCTA TCG CATA
                    ACTTCGAT AGC GTAT
                       AA C
GAM293 LOC150157 3' CACACGTATGCCATGGCC 3325
                                          CCTCGA
                    GGCTA CATACGTGTG
                    CCGGT
                          GTATGCACAC
                      ACC
GAM293 LOC196890 3' CACACGTATGCCATGGCC 3468
                                          CCTCGA
                    GGCTA
                           CATACGTGTG
                    CCGGT
                          GTATGCACAC
                      ACC_{-}
GAM294 ARHGAP6 3' TGTATTCTGTAACAGATTA 807
                                        CA
                    TAA TGTTACAGAATATA
                    ATT ACAATGTCTTATGT
                     AG
GAM294 ARHGAP6 3' TGTATTCTGTAACAGATTA 1450
                                        CA
                    TAA TGTTACAGAATATA
```

```
ATT ACAATGTCTTATGT
                      AG
GAM294 ATP11B 3' TAATTTGAATCTGAACATGTTA 3158
                                            A ATA
                     TAACATGTT CAGA TAAATTA
                     ATTGTACAA GTCT GTTTAAT
                        _ AA_
GAM294 BNC
            3' TAATTCTTGTTCTGTAACATG 850
                                            TΑ
                     CATGTTACAGAATA AATTA
                     GTACAATGTCTTGT TTAAT
                          TC
GAM294 CREBL2 3' TAATTTATATTCTTTCCATGT 817
                                         TTAC
                     ACATG AGAATATAAATTA
                     TGTAC TCTTATATTTAAT
                       CTT
GAM294 GCNT1 3' TAATTTATATTCTGCTCTAATA 830
                     TGTTA CAGAATATAAATTA
                     ATAAT GTCTTATATTTAAT
                       CTC
GAM294 MBNL
            3' TATACTGTATAACATGTTA 1938
                                            Α
                     TAACATGT TACAG ATA
                     ATTGTACA ATGTC TAT
                        AΤ
GAM294 AFAP
            3' TAATTTATATCTGTACATATTA 1952
                                        C T A
                     TAA ATGT ACAGA TATAAATTA
                     ATT TACA TGTCT ATATTTAAT
GAM294 LOC148195 3' TAATTTATCTGTTAACATGTT 3299
                                             _ ATA
                     AACATGTTA CAGA TAAATTA
                     TTGTACAAT GTCT ATTTAAT
                        Т
GAM295 ATP6V1A1 3' GAGGTTTCTCAGAATATCT 847
                                             CGCT
                     AGATATTCTGAG AACCTT
                     TCTATAAGACTC TTGGAG
                         T__
GAM295 DAP
            3' AGGTTAGGAGAAAACCTCA 2954
                                        ATA GAGCG
                     TGAG TTCT CTAACCT
                     ACTC AAGA GATTGGA
```

CAA G_

TGAG ATTCTGAG CGCTA CTT

AΤ

AC

3' AAGTATAGTGACTCAGAATCCT 919

GAM295 LIFR

CA

```
ACTC TAAGACTC GTGAT GAA
                      C_ A AT
GAM295 RECK 3' AGCTTTCAGAATATGTCA
                                            С
                                1941
                                       G
                    TGA ATATTCTGAG GCT
                    ACT TATAAGACTT CGA
                     G
                          Т
GAM295 SLC13A3 3' AAGGCCAGGGTAAAATGTCTCA 2570
                                             CTGA G AA
                    TGAGATATT GC CT CCTT
                    ACTCTGTAA TG GA GGAA
                        AA G CC
GAM295 TEM8
            3' GGGGCCAGAATATCTCA 2236
                                          A G
                    TGAGATATTCTG GC CT
                    ACTCTATAAGAC CG GG
                         G
GAM295 DKFZp547l224 3' GTTAGCAAGGATATCCA 1903
                                              GAGC
                    TG GATATTCT GCTAAC
                    AC CTATAGGA CGATTG
                        Α___
GAM295 OLFM3 3' AGCATCATCCTCAAATATCTCA 3232
                                            C C___
                    TGAGATATT TGAG GCT
                    ACTCTATAA ACTC
                                   CGA
                        _ CTACTA
GAM295 TSARG1 3' AGATGTTCAGAATATCTCA 2470
                    TGAGATATTCTGAGCG CT
                    ACTCTATAAGACTTGT GA
GAM295 LOC114987 3' AGGCCAAAAATATCTCA 2517
                                           CAG
                    TGAGATATT TG GC CT
                    ACTCTATAA AC CG GA
                        AA _ _
GAM295 LOC152445 5' AGGCTCCGCAAATATCTCA 3360
                                           CT__ G
                    TGAGATATT GAGC CT
                    ACTCTATAA CTCG GA
                        ACGC _
GAM296 FLJ20139 5' ACCATATCAATCCATATA 1737
                                        CAA
                    TGTA ATTGATATGGT
                    ATAT TAACTATACCA
                      ACC
GAM296 LOC91796 3' ACGTTTTACAATCAATTTGTAC 2785
                                              A GTCGT
        Α
                     TGTACAAATTGAT TG CGT
```

```
_ ATTTT
                                         A AGA
GAM297 CMAR 3' CCCCATCGCCTACTCCATG 1194
                    CATGGAGTAG TGAT GGGG
                    GTACCTCATC GCTA CCCC
GAM297 CRHR1 3' TTCCCCTCACTTAACCACCCCA 1105
                                          A AGA TA
        Т
                    ATGG GT TGA GAGGGGAA
                    TACC CA ATT CTCCCCTT
                     C CCA CA
GAM297 DTR
           3' TTCCCCTCCACCAAACCCCA 874
                                     A AGA ATA
                    TGG GT TG GAGGGGAA
                    ACC CA AC CTCCCCTT
                     C A CAC
GAM297 FGF5 3' TCCCCTCTCCACCCACCCCA 1117
                                      A AGA AT
                    TGG GT TG AGAGGGGA
                    ACC CA AC TCTCCCCT
                     C CCC C_
GAM297 FGF5
            3' TCCCCTCTCCACCCACCCCA 2315
                                        A AGA AT
                    TGG GT TG AGAGGGGA
                    ACC CA AC TCTCCCCT
                     C CCC C
GAM297 GAA
           3' CCCCTCCATCTGTTCC 713
                                       ATA
                    GGAGTAGATG GAGGGG
                    CCTTGTCTAC CTCCCC
GAM297 GNL1 3' TCCCCTCTGCCACCCCA 3550
                                      A AGAT A
                    TGG GT G TAGAGGGGA
                    ACC CA C GTCTCCCCT
                     C ____C
GAM297 GNL1
            3' TCCCCTCTGCCACCCCA 3748
                                      A AGAT A
                    TGG GT G TAGAGGGGA
                    ACC CA C GTCTCCCCT
                     C ____C
GAM297 KCNA6 3' TCCCCTCCCTACCTCATG 915
                                       GA ATGATA
                    CATG GTAG GAGGGGA
                    1111 1111
                         CTCCCCT
                    GTAC CATC
                     TC C_
GAM297 LDHB
            5' CCCCATACACCATCTATTCCAT 918
                                           ATAGA
```

ATGGAGTAGATG GGGG

ACATGTTTAACTA AC GCA

```
CACATA
GAM297 LTBP2 3' TTCCCCTCCACTCAGAAACCCC 740 A AGA TA
                    GG GT TGA GAGGGGAA
                    CC CA ACT CTCCCCTT
                    C AAG CAC
GAM297 MARK1 5' CCCCTCCTCTTACTCCG
                               1856
                                        AT TA
                    TGGAGTAG GA GAGGGG
                    GCCTCATT CT CTCCCC
                       С
GAM297 PLAT
           3' TTCCCCTTTCCCCACTCCCTG 2306 T AGAT TA
                    CA GGAGT GA GAGGGGAA
                    GT CCTCA CT TTCCCCTT
                    C CCC
GAM297 PLAT 3' TTCCCCTTTCCCCACTCCCTG 788 T AGAT TA
                    CA GGAGT GA GAGGGGAA
                    GT CCTCA CT TTCCCCTT
                    C CCC_ _
GAM297 PTGIR 3' CCCCTCTACCAAGCCACTCCA 791
                                         AGA A
                    TGGAGT TG TAGAGGGG
                    ACCTCA AC ATCTCCCC
                      CCGA C
GAM297 PXN
           3' CCCCTCTTTCACTTCAT 965
                                    AGAT T
                    ATGGAGT GA AGAGGGG
                    TACTTCA CT TCTCCCC
                         Т
GAM297 RNH
           5' TCCCCTCTACCAAGGGTTCC 2536
                                        AGA A
                    GGAGT TG TAGAGGGGA
                    CCTTG AC ATCTCCCCT
                      GGA C
GAM297 SCN4A 3' TCCCTTCTCATCTCCCCA 730
                                      AGT
                                           TΑ
                    TGG AGATGA GAGGGGA
                    ACC TCTACT CTTCCCT
                     CC_{-}
GAM297 SH3GL1 3' TCCCTTCCCCACTCCATG 982
                                        AGATGATA
                    CATGGAGT
                             GAGGGGA
                    GTACCTCA
                              CTTCCCT
                       CCC_{-}
GAM297 ZNF261 3' TTCCCCTCTATTGTTCCCC 1184
                                      AGTA TG
                    GG GA ATAGAGGGGAA
```

TACCTTATCTAC

CCCC

```
CC__ GT
GAM297 AKAP3 3' CCCCTCTATATCCTC
                               1300 TA A
                    GAG GATG TAGAGGGG
                    CTC CTAT ATCTCCCC
GAM297 C3F 3' TCCCCTCTGATTCCCCCATG 1246
                                     AGTA TGA
                    CATGG GA TAGAGGGGA
                    GTACC CT GTCTCCCCT
                      CC TA
GAM297 CL24751 5' CTCCTTCATCTACTCC
                                2698
                                        TAG
                    GGAGTAGATGA AGGGG
                    CCTCATCTACT TCCTC
GAM297 DIS3 3' TTCCCCTAAGTTCTATTCCAT 1597
                                        TGATAG
                    ATGGAGTAGA AGGGGAA
                    TACCTTATCT TCCCCTT
                        TGAA
GAM297 FLJ10700 3' CCTTCATCCACTCCATG 1794
                                        A TAG
                    CATGGAGT GATGA AGG
                    GTACCTCA CTACT TCC
GAM297 FLJ13102 3' TCCCCTCTACCAATCCCTG 2104 T GTAGA A
                    CA GGA TG TAGAGGGGA
                    GT CCT AC ATCTCCCCT
                     C A___ C
GAM297 FLJ32978 3' TCCCATTGGTCACCTTACTCCA 2488
                                           A_ AGAG
                    TGGAGTAG TGAT GGGA
                    ACCTCATT ACTG CCCT
                       CC GTTA
GAM297 HSPB7 3' TTCCCCTCTACCAGCCTCCA 1499
                                        TAGA A
                    TGGAG TG TAGAGGGGAA
                    ACCTC AC ATCTCCCCTT
                      CG C
GAM297 HTCD37 3' TTCCCCTTTTTCCTACCCCA 2796 A AT T
                    TGG GTAG GA AGAGGGGAA
                    ACC CATC CT TTTCCCCTT
                     C __ T
GAM297 KIAA0280 3' TTCCCCTCCATCTGATCC 3537
                                       G
                                          ATA
                    GGA TAGATG GAGGGGAA
```

CC TT TATCTCCCCTT

```
CCT GTCTAC CTCCCCTT
GAM297 KIAA0450 5' TCCCCTCTACTACCCC 1511 A ATGA
                   GG GTAG TAGAGGGGA
                   CC CATC ATCTCCCCT
                    С
GAM297 KIAA0731 3' CCCCTCCTCTCCATG 2767
                                      T TGATA
                   CATGGAG AGA GAGGGG
                   GTACCTC TCT CTCCCC
                     С
GAM297 KIAA1462 3' TCCCCTCTGTGTCTCCATG 3523
                                      TAGATG
                   CATGGAG ATAGAGGGGA
                   GTACCTC TGTCTCCCCT
                     TG
GAM297 LIMK2 3' CCCCTTTCTACTCCA
                             1710 TGATA
                   TGGAGTAGA GAGGGG
                   ACCTCATCT TTCCCC
GAM297 LIMK2 3' CCCCTTTCTACTCCA
                            1225
                                    TGATA
                   TGGAGTAGA GAGGGG
                   ACCTCATCT TTCCCC
GAM297 MGC2541 5' TCCCCTTCCTAGCTCCATG 2385
                                        ATGATA
                   CATGGAGT AG GAGGGGA
                   GTACCTCG TC
                             TTCCCCT
                      AC_{-}
GAM297 MGC3101 3' CCCTTCTTCTACTCCA
                                      TGAT
                               2046
                   TGGAGTAGA AGAGGGG
                   ACCTCATCT TCTTCCC
GAM297 NCOA2 3' TTCCCCTCTCATTCCCCAT 1307 AGTA T
                   ATGG GATGA AGAGGGGAA
                   TACC TTACT TCTCCCCTT
                    CC__ C
                                      _ ATGA
GAM297 RBM14 3' TTCCCCTCTACCCTGCCTCC 1289
                   GGAG TAG TAGAGGGGAA
                   CCTC GTC ATCTCCCCTT
                    C CC_
                                     A AT _
```

GAM297 SCYA5 3' TTCCCCTCACTATCCTACCCCA 979

TGG GTAG GATA GAGGGGAA

```
ACC CATC CTAT CTCCCCTT
                      C _ CA
GAM297 U5-116KD 3' CCCCTTGCTCCCACTCCATG 1095
                                           AGAT TA
                    CATGGAGT GA GAGGGG
                    GTACCTCA CT TTCCCC
                        CC__ CG
GAM297 WSB1
            3' TCCCCCACCTACTCCA
                                2429
                                        A ATAGA
                    TGGAGTAG TG GGGGA
                     ACCTCATC AC CCCCT
                        С
GAM297 LOC144501 3' TCCCCTTCCTCCCTCCATG 3268
                                           TAGAT TA
                     CATGGAG GA GAGGGGA
                     GTACCTC CT TTCCCCT
                       C CC
GAM297 LOC146940 3' TCCCTTCCCCACTCCATG 3101
                                         AGATGATA
                    CATGGAGT GAGGGGA
                     GTACCTCA
                               CTTCCCT
                        CCC
GAM297 LOC197003 3' TCCCCTTCTCCACTCC
                                       A T TAG
                                  3418
                     GGAGT GA GA AGGGGA
                     CCTCA CT CT TCCCCT
                      C _ __
GAM297 LOC200953 5' CCCCTCCACCTGCTCCA 3482
                                          A ATA
                    TGGAGTAG TG GAGGGG
                     ACCTCGTC AC CTCCCC
                        С
GAM297 LOC257541 3' TCCCCTCTGCCACCCCA 3746
                                         A AGAT A
                    TGG GT G TAGAGGGGA
                    ACC CA C GTCTCCCCT
                      C ____C
GAM298 G2
           5' TGGGACAGCCGACTT
                               2756
                                        ATCTTA
                    AAGTTGGCTGTC
                                  CCA
                     TTCAGCCGACAG
                                   GGT
GAM298 REM
            5' ATTGGCTGACAGCCAATT 1462
                                          TCTTA
                    AGTTGGCTGTCA CCAAT
                     TTAACCGACAGT GGTTA
                         \mathsf{C}_{\scriptscriptstyle{-}}
GAM298 LOC90321 3' GTAAGATGACAGGGCTGACTT 2631
                                           TG __
```

AAGT GCT GTCATCTTAC

```
GT GA
GAM298 LOC91650 5' ATTGGTAAACAACCAAT
                                  2766
                                        C CATC
                    GTTGG TGT TTACCAAT
                    TAACC ACA AATGGTTA
                      Α
GAM299 CD28
            3' ATAATTAATGGTACTCCTATAA 1274
                                          ATAC
        TT
                     AATTATAG GCTATTAATTAT
                    TTAATATC TGGTAATTAATA
                       CTCA
GAM299 ABCA6 3' ATAATTAATAGTATGTTTA 2374
                                        CG
                    TAGATA CTATTAATTAT
                    ATTTGT GATAATTAATA
                       AΤ
GAM299 FLJ21302 3' GTAGCACAATCTATAATT 2021
                                          AC
                    AATTATAGAT GCTAT
                    TTAATATCTA CGATG
                        ACA
GAM299 SLC7A11 3' TAATAGTCCCATATCTGTAAT 1492
                                            С
                    ATTATAGATA GCTATTA
                    TAATGTCTAT TGATAAT
                        ACCC
GAM300 AP2B1 3' AGTGTTACACTGTTTGA 814
                                       TCC
                    TTAGATA GTAACACT
                    AGTTTGT CATTGTGA
                       CA
GAM300 GOT1
            3' TGGTAAGAAGGATATTTAA 897
                                         GTAACAC
                    TTAGATATCC
                                TACCA
                    AATTTATAGG
                                ATGGT
                        AAGA
GAM300 ZNF14 3' TGGTAGTGCATGCCTCTAA 1934
                                        TATC AA
                    TTAGA CGT CACTACCA
                    AATCT GTA GTGATGGT
                      CC__ C_
GAM300 FLJ11827 3' TAGTGTTTAGAATATCTAA 2136
                                          CCGT
                    TTAGATAT AACACTA
                    AATCTATA TTGTGAT
                       AGAT
GAM300 HEYL
            3' TGGGTTGTTGCGGACATC 1507
                                       Α
                                            CTA
```

GAT TCCGTAACA CCA

TTCA CGG CAGTAGAATG

```
CTA AGGCGTTGT GGT
                          TG_
                      С
GAM300 LOC158722 5' TGGTAGTGCAGCTCATCTGA 3226
                                            ATCC AA
                     TTAGAT GT CACTACCA
                     AGTCTA CG GTGATGGT
                       CT AC
GAM301 ADAMTS5 3' AAAATTCATAGTAATCCTGCCA 1350
                                                GCTC
                     TGGTA GATTACTG GTTTT
                     ACCGT CTAATGAT TAAAA
                       С
                           ACT
GAM301 SLC38A4 3' GACGTTTACCAGTAATATCACC 1774
                                           AAG
                                                  CT
         Α
                     TGGT ATTACTGG CGTT
                     ACCA TAATGACC GCAG
                      CTA
                            ATTT
GAM302 SLC19A2 3' ATGGAATGTGGTACAAATTGTT 2835
                                         G A AAAT
                     AA AATTT TAT CATTCCAT
                     TT TTAAA ATG GTAAGGTA
                      G C GT
GAM302 COLEC12 3' ATGGACTGAATCACATAGATTC 2165
                                              ATAAA T
                     AGAATTTAT TCA TCCAT
         Т
                     TCTTAGATA AGT AGGTA
                        CACTA C
GAM302 COLEC12 3' ATGGACTGAATCACATAGATTC 2395
                                              ATAAA T
         Т
                     AGAATTTAT TCA TCCAT
                     TCTTAGATA AGT AGGTA
                        CACTA C
                                            AT A
GAM302 SH3BGRL 3' ATGGAATGATATATCCAAGTTC 2615
                     GAATTT ATA ATCATTCCAT
                     CTTGAA TAT TAGTAAGGTA
                       CC A
GAM302 LOC150848 5' GAATGATTTGGAGTTCTT 3334
                                           ATA
                     AAGAATTT TAAATCATTC
                     TTCTTGAG GTTTAGTAAG
GAM302 LOC219846 3' ATGAAATGATTTTTATAATTCT 3504
                                            TT
                                                  C
                     AGAATT ATA AAATCATT CAT
```

_ T

3' ATTAACTCCGTTTCCAAATACA 774

GAM303 DRD1

TCTTAA TAT TTTAGTAA GTA

GCTCCT

Α

TGTAT AGCGGAGTTAAT

```
AACCT_
GAM303 KIAA0182 3' AAGTCCTAGGAGCACACA 2931
                                             GC G
                     TGT TGCTCCTA GGA TT
                     ACA ACGAGGAT CCT AA
                          __ G
                      С
GAM303 SSH2
            3' AGCCCCAGGAGCATACA
                                  2626
                                           AGC A
                     TGTATGCTCCT GG GTT
                     ACATACGAGGA CC CGA
GAM303 LOC90918 5' ATTAAATCCAGGAACATATA 2687
                                           C AGC G
                     TGTATG TCCT GGA TTAAT
                     ATATAC AGGA CCT AATTA
                       A A
GAM304 PAFAH1B2 3' ACATTCATTGAATTATCAC 937
         TG
                      CAGT ATAATAATTCAGT AATGT
                     GTCA TATTATTAAGTTA TTACA
                      С
                             С
GAM305 GL004
            3' CGACAGAATAAGGTACAAATGT 2736
                                            A G C_ A
                      CTACATTT TAT TT TCT TCG
         AG
                     GATGTAAA ATG AA AGA AGC
                        C G TA C
GAM305 KIAA1336 3' CGATTTTCATATAAATGTATGA 2942
                                                TTCTCT
                     TC TACATTTATATG ATCG
                     AG ATGTAAATATAC
                                     TAGC
                     Т
                           TTT
GAM305 LOC147711 3' GAGAAAAACCATATAAATG 3112
                     CATTTATATG TTCTC
                     GTAAATATAC AAGAG
                         CAAA
GAM306 B3GALT3 3' TACTACACTGCCAGTTGTA 1058
                                          ATA
                     TACAA GCAGTGTAGTG
                     ATGTT CGTCACATCAT
                       GAC
GAM306 CSNK1G3 3' TACTGATGGTACTGTTATT 1106
                                            TA G
                     AATAGCAGTG GT CAGTA
                     TTATTGTCAT TA GTCAT
                         GG _
GAM306 DSC3
            3' TACTGCACTACCAAATTCATTT 2061
                                          AGCAGT_
         G
                     CAAAT GTAGTGCAGTA
```

ACATA

TTGCCTCAATTA

```
GTTTA
                            CATCACGTCAT
                       CTTAAAC
GAM306 DSC3
            3' TACTGCACTACCAAATTCATTT 872
                                          AGCAGT
         G
                     CAAAT GTAGTGCAGTA
                     11111
                         CATCACGTCAT
                     GTTTA
                       CTTAAAC
GAM306 STK24 3' CAGAACACTCCTATTTGTA 1037
                                           C AG
                     TACAAATAG AGTGT TG
                     ATGTTTATC TCACA AC
                        C AG
GAM306 SUV39H2 3' TACTCACTGTACTTGTA 2080
                                         ATA
                                              Т
                     TACAA GCAGTG AGTG
                     ATGTT TGTCAC TCAT
                       CA
GAM306 TAC1
            3' TATTACACTGTATTTGTA 1456
                                         G
                     TACAAATA CAGTGTAGTG
                     ATGTTTAT GTCACATTAT
GAM306 TAC1
            3' TATTACACTGTATTTGTA 1457
                                         G
                     TACAAATA CAGTGTAGTG
                     ATGTTTAT GTCACATTAT
GAM306 TAC1
            3' TATTACACTGTATTTGTA 1458
                                         G
                     TACAAATA CAGTGTAGTG
                     ATGTTTAT GTCACATTAT
GAM306 TAC1
            3' TATTACACTGTATTTGTA 996
                                         G
                     TACAAATA CAGTGTAGTG
                     ATGTTTAT GTCACATTAT
GAM306 UBQLN1 3' TACTGCATGCATCACTTCTG 1452
                                          C TA
                     TAG AGTG GTGCAGTA
                     GTC TCAC TACGTCAT
                      T TACG
GAM306 ZNF207 3' GCTTACATTGCTATTTGTA 1023
                                              Т
                     TACAAATAGCAGTGTAG GC
                     ATGTTTATCGTTACATT CG
GAM306 AKAP12 3' TACTACATGCTTTTTGTA 1185
                                         T G
                     TACAAA AGCA TGTAGTG
```

111111 1111 1111111

```
ATGTTT TCGT ACATCAT
                        Τ _
GAM306 AKAP12 3' TACTACATGCTTTTTGTA 2481
                                         T G
                     TACAAA AGCA TGTAGTG
                     ATGTTT TCGT ACATCAT
                        Τ
GAM306 FLJ10352 3' CACTACAATTATGCTTTTGTA 2232
                                            T G___
                     TACAAA AGCA TGTAGTG
                     ATGTTT TCGT ACATCAC
                        ATTA
GAM306 FLJ11222 3' CACTACAGAGCACTGTTTG 1819
                                            __ AG
                     CAAATA GC TGTAGTG
                     GTTTGT CG ACATCAC
                        CA AG
                                           TG T
GAM306 FLJ14641 3' TACTGCCTGTGCTGCTA 2284
                     TAGCAG TAG GCAGTA
                     ATCGTC GTC CGTCAT
                        GT _
GAM306 FLJ23537 3' ACTGCAGTACTGTTTGTA 2105
                                            GCAGT G
                     TACAAATA GTA TGCAGT
                     ATGTTTGT CAT ACGTCA
                            _ G
GAM306 KIAA1161 5' ACTGCACTAACCCATTTGTG 3212
                                             AGCA G
                     TACAAAT GT TAGTGCAGT
                     GTGTTTA CA ATCACGTCA
                        CC__ _
GAM306 MGC10646 3' CACTACGCTGCCATTTTA 2270 C A
                     A AAAT GCAGTGTAGTG
                     A TTTA CGTCGCATCAC
                      T C
GAM306 MLL5
             3' TACAGTCTCACACTGCTATCGT 3644
                                           AΑ
                                                 _ T A
         Α
                      TAC ATAGCAGTGT AG GC GTA
                      ATG TATCGTCACA TC TG CAT
                           \mathsf{C} \ \mathsf{A}
                       \mathsf{C}_-
GAM306 ZAK
            3' ACTGCACATATTGCTTTTG 2426
                                         Т
                                             Α
                     CAAA AGCAGTGT GTGCAGT
                     GTTT TCGTTATA CACGTCA
GAM306 ZNF387 3' ACTGTTATTACTGTTACCTG 1520
                                          AA
                                               TAGT
```

CA TAGCAGTG GCAGT

```
GT ATTGTCAT TGTCA
                            TAT_
                       CC
GAM306 LOC126661 3' ACTGCAGCCTCCGCTTCCTGT 3000 C T
                      ATAG AGTG AG TGCAGT
                      TGTC TCGC TC ACGTCA
                       CT C CG
GAM306 LOC139770 3' CACTACCGCTGTATCTGTA 3022
                                            A G
                      TACA ATA CAGTG TAGTG
                      1111 111 11111 11111
                      ATGT TAT GTCGC ATCAC
                       C C
GAM306 LOC150577 3' ACCGCATTTGCTGCTATCTGTG 3329
                                                   T A
                      TACA ATAGCAGTG AGTGC GT
                      GTGT TATCGTCGT TTACG CA
                               С
GAM306 LOC89919 5' TACTACACACATTGCTATTTG 2579
                                                A C
                      CAAATAGCAGTGT GTG AGTA
                      GTTTATCGTTACA CAC TCAT
GAM306 LOC92573 5' ACCGCAGGCTATGCTCTTTGTA 2869
                                               T GT AG A
                      TACAAA AGCA GT TGC GT
                      ATGTTT TCGT CG ACG CA
                        C AT G C
GAM307 NTRK2 3' GATGGCTTCCGTGAGACA 1275
                                                GA
                                           С
                      TGTC CACGGAAGT ATC
                      ACAG GTGCCTTCG TAG
                       Α
                            G
GAM307 ING3
                                          CCACGGAA
            3' AGGATTTACATAGACAAT 1879
                      ATTGTC GTGAATCCT
                      TAACAG
                               CATTTAGGA
                        ATA_
GAM307 KIAA1164 5' AAGGAACGCTTCCCGGGACAAT 2861
                                               AC
                                                     AA
                      ATTGTCCC GGAAGTG TCCTT
                      TAACAGGG CCTTCGC AGGAA
                         \mathsf{C}^-
                              \mathsf{A}_{-}
GAM307 LOC150577 5' AAGGAATTATTTCCACGAGACA 3328
                                               CCAC
                                                      Α
                      TTGTC GGAAGTGA TCCTT
         Α
                      AACAG CCTTTATT AGGAA
                        AGCA
                               Α
GAM307 LOC199936 3' AAGGGGCCCCCATGGGACAA 3474
                                                C AA GAA
                      TTGTCCCA GG GT TCCTT
```

```
A CC ___
                                           C AG_ _
GAM307 LOC257235 3' AAGGATTTCAGTATTCATGGGA 3727
        CAA
                      TTGTCCCA GGA TGAA TCCTT
                     AACAGGGT CTT ACTT AGGAA
                        A ATG T
GAM308 COL19A1 3' ATCCACATGGTACAAGCCTTTC 863
                                            ACCA G _
        TCA
                      TGAGAAAG GTA TAT TGGAT
                     ACTCTTTC CAT GTA ACCTA
                        CGAA G C
GAM308 EFEMP1 3' ATCCACTAAACTGGTCTTCTTC 1089
                                          GA
                                                AG T
        Α
                     TGA AAGACCAGT TA TGGAT
                     ACT TTCTGGTCA AT ACCTA
                      TC
                           A C
GAM308 EFEMP1 3' ATCCACTAAACTGGTCTTCTTC 1864
                                          GA
                                                AG T
                     TGA AAGACCAGT TA TGGAT
        Α
                     ACT TTCTGGTCA AT ACCTA
                      TC
                           A_ C
            3' ATCCCTGCTACTGTCCCTTCTC 1943
GAM308 FACL2
                                           A C
                                                 TT
                     TGAGAA GAC AGTAGTA GGAT
                     ACTOTT CTG TCATCGT CCTA
                       CC _ C_
GAM308 HDGF
            3' CCTCTTCCTACTGGTCTCTCT 1120
                                         Α
                                              TATT
                     AGA AGACCAGTAG GG
                     TCT TCTGGTCATC
                                   CC
                           CTTCT
                      С
            3' ATCCAACTAGTTGCTGGTCTCT 3642
GAM308 HGF
                                         GAA
        ATCA
                       TGA AGACCAGTAG TA TTGGAT
                     ACT TCTGGTCGTT AT AACCTA
                      ATC
                            G C
GAM308 NFE2L1 3' CCAATATATCTTCTCA
                                       A CCAGTA
                                999
                     TGAGAA GA
                              GTATTGG
                     ACTCTT CT TATAACC
                       _ A_
GAM308 NLGN1
             5' CCATTATACAGTCTTTCTCA 1592
                                           CA GTAT
                     TGAGAAAGAC GTA TGG
                     ACTCTTTCTG CAT ACC
                        A_ ATT_
GAM308 SLC21A2 3' ACTAACCCTGGTCTTTCCCA 1232
                                         Α
                     TG GAAAGACCAG TAGT
```

AACAGGGT CC CG GGGAA

```
С
                         CCA
GAM308 FHR5 3' ATCCAATACTAAATACCCCTTA 2166 AAAGACCAG
                    TGAG
                           TAGTATTGGAT
                         ATTC
                           ATCATAACCTA
                     CCCATAA
GAM308 FLJ13710 3' CTGGTGCTACTGGTCTTTCT 2091
                                             TG
                    AGAAAGACCAGTAGTAT G
                    TCTTTCTGGTCATCGTG C
                          GT
GAM308 KIAA1155 3' ATCACGGGCTAATAATCTTTCT 2628
                                         CCAG ATTG
        CA
                     TGAGAAAGA TAGT GAT
                    ACTCTTTCT ATCG CTA
                       AATA GGCA
GAM308 SEF 3' TCTCTCACTACCTTTCTCA 2860
                                       ACCA ATT
                    TGAGAAAG GTAGT GGA
                    ACTCTTTC CATCA TCT
                           CTC
GAM308 TREX1 5' ATCCAGTAATCCAGTCTCCCTC 2337
                                        AA CAGTAG
                    TGAG AGAC TATTGGAT
                    ACTC TCTG ATGACCTA
                     CC ACCTA
GAM308 TRIM6 3' ATCCAATACATATTTTTCTC 2366
                                        CCA A
                    GAGAAAGA GT GTATTGGAT
                    CTCTTTTT TA CATAACCTA
                                      C A TT
GAM308 VEST1 3' ATTCTCTACCACTGCTCTTTCT 2349
        CA
                     TGAGAAAGA CAGT GTA GGAT
                    ACTCTTTCT GTCA CAT CTTA
                       C C CT
GAM308 LOC149076 5' ATGCCCACTGACCTTTTCA 3128
                                           AC A
                    TGAGAAAG CAGT GTAT
                    ACTTTTC GTCA CGTA
                       CA CC
GAM308 LOC254043 3' ATCTTTCTCTCTAGTCTTTCTC 3667 C T TATT
        Α
                    TGAGAAAGAC AG AG GGAT
                    ACTCTTTCTG TC TC TCTA
                        A _ TCTT
            3' AAAGGTATTTGGGCAAAC 1149
GAM309 BUB3
                                      A_ T
```

GTTT TCA ATACCTTT

AC CTTTCTGGTC ATCA

CAAA GGT TATGGAAA	
CG T GAM309 CLCN6 3' TAAAGGTATGTGCTATGATAAA 815 III TTTATCATA TACCTTT A	
AAATAGTAT ATGGAAA T CGTGT III GAM309 CLCN6 3' TAAAGGTATGTGCTATGATAAA 1957 II TTTATCATA TACCTTT A AAATAGTAT ATGGAAA T	I
CGTGT III GAM309 CLCN6 3' TAAAGGTATGTGCTATGATAAA 1958 II TTTATCATA TACCTTT A AAATAGTAT ATGGAAA T	II.
CGTGT III GAM309 CMAR 3' AAAGGAAGTGATAAACTA 1193 ATA TAGTTTATCAT CCTTT ATCAAATAGTG GGAAA	
AA_ GAM309 CTPS 3' AAAGGTATTTGGGAAACT 3441 AT T AGTTT CA ATACCTTT TCAAA GT TATGGAAA	
GG T GAM309 RB1 3' AAAGGTGTATTTAAACTA 3505 TC TAGTTTA ATATACCTTT ATCAAAT TATGTGGAAA	
T_ GAM309 RP2 3' AAAGGTATATGCAATGCTA 1339 TTAT TAGT CATATACCTTT ATCG GTATATGGAAA	
TAAC GAM309 WHSC1 3' AAAGGTATATGTGATAAAT 1394 GTTTATCAT ATACCTTT TAAATAGTG TATGGAAA TA	
GAM309 ARHGAP11A 3' AAGGGTAGAGATAAACT 1546 ATA AGTTTATC TACCTTT TCAAATAG ATGGGAA AG	
GAM309 FLJ20533 3' AAAGGTATGTGAATAAAT 1758 GTTTAT CATATACCTTT	

```
TAAATA GTGTATGGAAA
A
GCTTACTGATAAACT 2356
```

GAM309 MGC16063 3' AAAGGCTTACTGATAAACT 2356 _ TA AGTTTATCA TA CCTTT

TCAAATAGT AT GGAAA

C TC

GAM309 SEMA3C 3' AAAGGTATAATTAAACT 1293 TCA

AGTTTA TATACCTTT

TCAAAT ATATGGAAA

TA

GAM309 LOC135293 3' AAGGTATAATAAACTG 3047 CA

TAGTTTAT TATACCTT

GTCAAATA ATATGGAA

GAM309 LOC153883 3' AAAGGTATATTTGACTA 3182 TATC

TAGTT ATATACCTTT

ATCAG TATATGGAAA

TT__

GAM309 LOC199692 3' GAGGGTGTAATAAACTG 2521 CA

TAGTTTAT TATACCTTT

GTCAAATA ATGTGGGAG

GAM310 MGC5242 5' CCTTACAATCCGAGACTA 2042

TGGTCTCGGATT AGG

ATCAGAGCCTAA TCC

CAT

GAM310 LOC197259 3' GCCAATCAAGACCAGAA 3422 CG A

TTCTGGTCT GATT GGC

AAGACCAGA CTAA CCG

A_ _

GAM311 CRYBA4 3' AAAACTCAAACGAATAAAAAAG 865 ATC

CTTTTTTAT CGTT GGTTTT

GAAAAATA GCAA TCAAAA

A AC_

GAM311 UCHL1 3' GCTGATAAGATAAAAAA 1093 G

TTTTTTATC TTATCGGT

AAAAAATAG AATAGTCG

GAM311 BDG-29 3' GAAAACCGTCTCATAACAAAG 2944 _ CGTTAT

G CCTTTT TTAT CGGTTTTC

```
GGAAAA AATA
                                  GCCAAAAG
                        C CTCT
GAM311 ERG-1 5' GAAATTTCAATGATAAAAAAGG 1972
                                                ATC
                      CCTTTTTTATCGTT GGTTTT
                      GGAAAAAATAGTAA TTAAAG
                           CT
GAM311 LOC199837 5' GAAAGAAGAACAATAGAAAAG 3434
                                                 C A GG
         G
                      CCTTTTTTAT GTT TC TTTTC
                      GGAAAAGATA CAA AG GAAAG
                          A AA
GAM312 BHLHB3 3' AAGTCCAAACTGATATATCCTA 2160
                                                TTAAA
                      TAG ATATATT GGACTT
                      ATC TATATAG
                                  CCTGAA
                       С
                           TCAAA
GAM312 CLN2
             3' AAGTCCTTCCAATTATATTT 735
                                           T TA
                      GAATATA TT AAGGACTT
                      TTTATAT AA TTCCTGAA
                         T CC
GAM312 ZFP36L1 3' TCCATAGAATATATTCT
                                   1165
                                             AA
                      AGAATATATTTTA GGA
                      TCTTATATAAGAT CCT
                           Α
GAM312 C8orf2 3' TCCATTTAAAATACATTC 1361
                                         Α
                      GAAT TATTTTAAA GGA
                      CTTA ATAAAATTT CCT
                       С
                            Α
GAM312 DKFZP566K05243' AAGGATTTAAAATATATTC 2854
                                                    GGA
                      GAATATATTTTAAA CTT
                      CTTATATAAAATTT GAA
                           AG
GAM312 FIGNL1 3' TTTTTAAGAATATATTCTA 1980
                                             Α
                      TAGAATATATTTT AAGGA
                      ATCTTATATAAGA TTTTT
GAM312 FLJ10704 3' TTTTTTAAAATATATTTTA 1796
                      TAGAATATTTTAAAGGA
                      1111111111111111111
                      ATTTTATATATATTTTTT
GAM312 HDAC9-PENDING 3' TCTTTTAAAATACATTTTA 1528
                      TAGAAT TATTTTAAAGGA
```

```
ATTTTA ATAAAATTTTCT
                       C
                                             AA A
GAM312 KIAA1384 3' AAGCCTAAAATATATTTTA 2695
                     TAGAATATATTT AGG CTT
                     ATTTTATATAAAA TCC GAA
GAM312 SOX30 3' TTTCTTAAAATATATTCTG 1346
                                             AG
                     TAGAATATATTTTAA GA
                     GTCTTATATAAAATT TT
                           CT
GAM312 LOC221810 3' AGTCTTTAAAATATATTCTG 3625
                                                G
                     TAGAATATATTTAAAG ACT
                     GTCTTATATAAAATTTC TGA
GAM312 LOC255177 3' AGTTCTTTAAAAATATTCTA 3712
                                            Α
                     TAGAATAT TTTTAAAGGACT
                     ATCTTATA AAAATTTCTTGA
GAM313 ADRA1A 3' TTCCCATAGACACCCAGCCCAT 2327
                                             CCA
                                                    Α
         AG
                      CTATGGGT TCTATG GAA
                     GATACCCG AGATAC CTT
                        ACCCAC
                                С
            3' TTCTCATAAATGGATCTG 845
GAM313 ARF3
                                         C
                     TGGGTCCAT TATGAGAA
                     GTCTAGGTA ATACTCTT
                        Α
GAM313 C14orf1 3' TCTCTGCTGCTGGACCCAAGA 1362
                                              TCTAT
                     TCT TGGGTCCA GAGA
                     1111
                     AGA ACCCAGGT
                                   CTCT
                          CGTCGT
GAM313 CTNNA2 3' TTCTCATAAAATTGGGCACA 1108
                                         G TC__
                     TG GTCCA TATGAGAA
                     AC CGGGT ATACTCTT
                      A TAAA
            3' TTCTCATACCTGCCCACAG 829
GAM313 FAT2
                                       Α
                                          CCATC
```

C TCC__ GAM313 GALNT3 3' TTCAATGGACCCACAGG 1118 A CTA TCT TGGGTCCAT TGAG ||| ||||||||| ||||

CT TGGGT TATGAGAA

GA ACCCG ATACTCTT

```
GGA ACCCAGGTA ACTT
                     C
GAM313 HMG20A 3' TCTCATAGTATGCCCATA 1801 CCAT
                    TATGGGT CTATGAGA
                    ATACCCG GATACTCT
                      TAT
GAM313 HPCA 3' TCTCACACACACACAGGCCCAT 903
                                      CATCTA
                     TCTATGGGTC
                                 TGAGA
        AGA
                    IIIII
                    AGATACCCGG
                                 ACTCT
                       ACACACACAC
GAM313 MTMR3 3' CTCACAGATGGATAAATG 1939
                                      GG
                                            Α
                    TAT GTCCATCT TGAG
                    GTA TAGGTAGA ACTC
                     AA
                         C
GAM313 PIGR 3' CTCACATGGACCCAAGA 2955 A
                                         CTA
                    TCT TGGGTCCAT TGAG
                    AGA ACCCAGGTA ACTC
                        C__
GAM313 PIWIL1 3' TTCTCATAGATATTTTGTG 2959
                                      GG TCC
                    TAT G ATCTATGAGAA
                    GTG T TAGATACTCTT
                     TT TA
                                     _ CCA
GAM313 SORBS1 3' TTCTCATAGAACACCA 1625
                    TGG GT TCTATGAGAA
                    ACC CA AGATACTCTT
GAM313 TOP3A 3' TTCTCATAGACGTCCTGAGA 1132 A TCCA
                    TCT TGGG TCTATGAGAA
                    AGA GTCC AGATACTCTT
                     _ TGC_
GAM313 UC28
           3' TTCTCAATCTTGAACTCATAGA 1951
                                       C TCTA
                    TCTATGGGT CA TGAGAA
                    AGATACTCA GT ACTCTT
                       A TCTA
GAM313 ARL5 3' TTCTCATAGATTTTGTA 1406
                                    GG TCC
                    TAT G ATCTATGAGAA
                    ATG T TAGATACTCTT
                     TT_
GAM313 DDM36 3' TCTCATAGGAGCATAGA 1932
                                       GG ATC
                    TCTATG TCC TATGAGA
```

111111 111 1111111

```
G_ ___
GAM313 FLJ21596 3' TCTCAGGGTGGGACCCATA 2093
                                            _ A
                    TATGGGTCC ATCT TGAGA
                    ATACCCAGG TGGG ACTCT
                        G _
GAM313 FLJ22202 5' TCCAGGAGATGGACCAACAGA 2102
                                          ATG
                    TCT GGTCCATCT TG GA
                     AGA CCAGGTAGA AC CT
                      CAA
                            GG _
GAM313 GPNMB 3' TCTCATAAATGGGTGGGA 935
                                        ATGGG C
                    TCT TCCAT TATGAGA
                     AGG GGGTA ATACTCT
                      GT A
GAM313 HSZFP36 3' CAGGAGATGGACCCCAGA 2659
                                         ΑT
                                               Α
                    TCT GGGTCCATCT TG
                    AGA CCCAGGTAGA AC
                      \mathsf{C}_{-}
                           GG
GAM313 IPLA2(GAMMA) 3' TTCTCATAAATGAAGGTCTGT 2577 GT C
                    ATGG C CAT TATGAGAA
                     TGTC G GTA ATACTCTT
                      TG AA A
GAM313 KIAA0648 3' TTCTCATAGATAATCAAGA 3258
                                       A GTCC
                    TCT TGG ATCTATGAGAA
                     AGA ACT TAGATACTCTT
                      _ AA__
GAM313 KIAA1239 3' TTCATGTAACCCATAGA
                                          CCATC
                                 2915
                    TCTATGGGT TATGAG
                     AGATACCCA GTACTT
                        ΑT
GAM313 KIAA1577 5' TTCTCATGGGTACCCCAGA 2691
                                         AT CC
                     TCT GGGT ATCTATGAGAA
                     AGA CCCA TGGGTACTCTT
                      C_ _
GAM313 KIAA1821 3' CTCATCCTGTACCTATAGA 2926
                                           C TCT
                    TCTATGGGT CA ATGAG
                     AGATATCCA GT TACTC
                        T CC_
GAM313 KIAA1853 5' CTCAGGATGGACCCTCAGA 2857
                                         AΤ
                                               Α
                    TCT GGGTCCATCT TGAG
```

AGATAC AGG ATACTCT

```
AGA CCCAGGTAGG ACTC
                     CT
GAM313 MGC3169 3' TCTCTGCCAGGACCCCATAGA 2051
                                         ATCTAT
                    TCTATGGG TCC GAGA
                    AGATACCC AGG CTCT
                       C ACCGT
GAM313 MST4 3' TTCATATGGACCCAGAGA 1696 A
                                          TC
                    TCT TGGGTCCA TATGAG
                    AGA ACCCAGGT ATACTT
                     G
                                         ____ C_ A
GAM313 PDE10A 3' ATTCTCACAGATCAGATCACTC 1321
        CATAGA
                       TGG GTC ATCT TGAGAA T
                    ACC TAG TAGA ACTCTT A
                     TCAC AC C III
GAM313 SKD3 3' TTCTAAGGGGAAGGGACCCATA 2170
                                           A_ ATG_
        GA
                     TCTATGGGTCC TCT AGAA
                    AGATACCCAGG AGG TCTT
                        GA GGAA
GAM313 STX18 3' CTCATGGGCACTCACAGA 1714 A CCA
                    TCT TGGGT TCTATGAG
                    AGA ACTCA GGGTACTC
                     C C__
GAM313 LOC115811 5' CTCTGTGGACCTACAGA 2441 A
                                            CTAT
                    TCT TGGGTCCAT GAG
                    AGA ATCCAGGTG CTC
                     С
                         T__
GAM313 LOC131308 3' TTCCAGCCTGAACCCATGGA 3013 C TCTA A
                    TCTATGGGT CA TG GAA
                    AGGTACCCA GT AC CTT
                       A CCG_ _
GAM313 LOC139221 3' TCTCATAGATACTAGTTGA 3036
                                       TATG CC
                    TC GGT ATCTATGAGA
                    AG TCA TAGATACTCT
                     TTGA _
GAM313 LOC158490 5' TCTCATAGGACTGTCCTAGA 3220
                                       T TCCA
                    TCTA GGG TCTATGAGA
                    AGATICCT GGATACTCT
                     _ GTCA
GAM313 LOC221466 5' CTCAGGATCCATAGA
                                3618
                                         ATCTA
                    TCTATGGGTCC TGAG
```

AGATACCTAGG ACTC

GAM313 LOC221540 3' TTCTCATAAATCCCCGCCCA 3621 CC__C TGGGT AT TATGAGAA ACCCG TA ATACTCTT CCCC A GAM313 LOC222233 5' CTCAGCAGAGACAGACCCCAGA 3648 AT CA_ A_ TCT GGGTC TCT TGAG AGA CCCAG AGA ACTC C ACAG CG GAM313 LOC255042 3' TTCTCACAGATGGGCAGCA 3671 G TG GTCCATCT TGAGAA AC CGGGTAGA ACTCTT GA С GAM313 LOC256117 3' CTCATTCGAGACCCCATAGA 3705 CATCT TCTATGGG TC ATGAG AGATACCC AG TACTC C AGCT GAM313 LOC257545 3' TTCTCATAAATCCCCGCCCA 3747 CC C TGGGT AT TATGAGAA ACCCG TA ATACTCTT CCCC A GAM313 LOC257598 3' TTCTCATAAATCCCCGCCCA 3750 CC C TGGGT AT TATGAGAA ACCCG TA ATACTCTT CCCC A GAM314 CHAC 3' TGCCCATATGTCCATTTAT 1612 **AGAT** ATAAGTGGACATAT GCA TATTTACCTGTATA CGT CC_ GAM314 GGCX 3' CTGCACCCTGCCACTTGT 778 A TATAGA ATAAGTGG CA TGCAG TGTTCACC GT **ACGTC** _ CCC_ GAM314 ITPKB 3' TCTGCATCTGTCCAC 911 TATA GTGGACA GATGCAGA CACCTGT CTACGTCT GAM314 KCNAB1 3' TCTAATGTTATGTCCACTTA 2584 TAAGTGGACATA TAGA

```
ATTCACCTGTAT ATCT
```

TGTA

GAM314 KLRC4 5' CTGTCAAAATATACACCACTTA 1451 ACA GA_ _
T ATAAGTGG TATA TG CAG

TATTCACC ATAT ACGTC

AC_ AAA T

GAM314 MLF2 3' TCTGCATCTACTGACTTG 1212 _ ACATA

TAAGT GG TAGATGCAGA

GTTCA TC ATCTACGTCT

G

GAM314 NR1I2 3' TCTGCATCCATTTGAACAC 1971 GA T A

GTG CA AT GATGCAGA

CAC GT TA CTACGTCT

AA T C

GAM314 NR1I2 3' TCTGCATCCATTTGAACAC 1067 GA T A

GTG CA AT GATGCAGA

CAC GT TA CTACGTCT

AA T C

GAM314 CEP3 3' TTCTACATCAGATGTTGTCACT 1304 __ ATA C

TAT ATAAGTG GACAT GATG AGAA

TATTCAC TTGTA CTAC TCTT

TG GA_ A

GAM314 FHX 3' TCATGGATCATGTCCAC 1825 ATA G

GTGGACAT GAT CA GA

CACCTGTA CTA GT CT

__ G A

GAM314 FLJ10352 3' TTCTGCATCTACAACTCAACAT 2233 GACATA

TTA TAAGTG TAGATGCAGAA

ATTTAC ATCTACGTCTT

AACTCAAC

GAM314 FLJ22127 3' TCGAGTCCATATGTCCAC 2008 A GCA

GTGGACATAT GAT GA

CACCTGTATA CTG CT

C AG_

GAM314 GDAP1L1 3' TCTGCATCCATGCCAC 2043 A ATA

GTGG CAT GATGCAGA

CACC GTA CTACGTCT

_ C__

GAM314 H-L(3)MBT 3' TCTGCTCTCTACCCACT 2230 ACA T T

AGTGG TA AGA GCAGA

```
TCACC AT TCT CGTCT
                      C__ C _
                                          Α __
GAM314 KIAA1340 3' TCTAAGCTATGCCCATTTAT 2846
                    ATAAGTGG CATA TAGA
                    TATTTACC GTAT ATCT
                        C CGA
GAM314 KNSL7 3' TTCTGCATCCATATACACCCT 1905 T AC_ A
                    AG GG ATAT GATGCAGAA
                    TC CC TATA CTACGTCTT
                     ACA C
GAM314 P5-1 3' CTCCATTTATGTACCCAC 1322
                                      AC
                                            C
                    GTGG ATATAGATG AG
                    CACC TGTATTTAC TC
                      CA
                           С
GAM314 PP1044 5' CTGCATCTTTACCTATATCCAT 1956 C T
        TTA
                      TAAGTGGA ATA AGATGCAG
                    ATTTACCT TAT TCTACGTC
                       A CCATT
GAM314 SIRPB1 3' TGCATGTGTCCACTTA
                                1272
                                         ATAG
                    TAAGTGGACAT ATGCA
                    ATTCACCTGTG TACGT
GAM314 LOC148811 3' CTGCATCTCTCCCCTTA 3126
                                       T CATAT
                    TAAG GGA AGATGCAG
                    ATTC CCT TCTACGTC
                      C C_{-}
GAM314 LOC149711 3' TCCATATGTCTATCCACTTA 3315
                    TAAGTGGA CATAT GA
                    ATTCACCT GTATA CT
                        ATCT C
GAM314 LOC150630 5' CTGCATCTTCTGCCACT
                                         A TAT
                                  3332
                    AGTGG CA AGATGCAG
                    TCACC GT TCTACGTC
                      _ CT_
GAM314 LOC150819 5' CTGCATTTTAGTCCAACT 3333
                                         _ ATAT
                    AGT GGAC AGATGCAG
                    TCA CCTG TTTACGTC
                      A AT__
GAM314 LOC154877 3' TCTGCATCCATTCCACT
                                  3373
                                         CAT A
                    AGTGGA AT GATGCAGA
```

TCACCT TA CTACGTCT ___ C GAM314 LOC158327 3' TTCTGCAGGGACACCACTTAT 3216 ACATATAGA ATAAGTGG TGCAGAA TATTCACC ACGTCTT ACAGGG GAM314 LOC196540 3' TCTGCATCCATGTACTCC 3467 C_ A **GGA ATAT GATGCAGA** CCT TGTA CTACGTCT CA C GAM314 LOC220394 5' TCTCAGAATATGTCCAT 3581 AGA C GTGGACATAT TG AGA TACCTGTATA AC TCT AG GAM314 LOC254428 3' CTGTTGACCCATGTCCACCTAT 3677 A ATAGAT ATA GTGGACAT GCAG TAT CACCTGTA TGTC С CCCAGT GAM314 LOC92405 3' TTCTGTTACACATGTCTACTTA 2848 ATAGAT TAAGTGGACAT GCAGAA ATTCATCTGTA TGTCTT CACAT GAM315 PIGH 3' CAAGATCATAGTATTTCAGTCA 1126 T _ GTA TG CT AAAT ATTATGATCTTG

AC GA TTTA TGATACTAGAAC

T C ___

GAM315 PRSC 3' CAAGATCATAATTTTATAGA 1313 AATGT

TCTA AATTATGATCTTG

AGAT TTAATACTAGAAC

ATT__

GAM315 PXMP4 3' CAAGATCATAGGCCTCAGAC 1370 AAATGTAA

GTCT TTATGATCTTG

CAGA GATACTAGAAC

CTCCG___

GAM316 C1orf1 5' TATGCTGACAGAAGAACCA 809 CC A A

TGGTTCTTT GT CA CATA

ACCAAGAAG CA GT GTAT

A_ _ C

GAM316 LRAT 3' AGTATGCATACATAAAAGCAAC 2556 _ CC_ CAA

CA TGGTT CTTT GTA CATACT

```
ACCAA GAAA CAT GTATGA
                      C ATA AC_
GAM316 MYBL1 3' AGTATGTTATACAAATGCCA 2679 TCTTTCC C
                    TGGT GTA AACATACT
                    ACCG CAT TTGTATGA
                      TAAA___ A
GAM316 KIAA1028 3' TATGTCTGCATTGAAAAGAACC 3547
                                        C TA_ _
                     TGGTTCTTT CG CA ACATA
                    ACCAAGAAA GT GT TGTAT
                        A TAC C
GAM316 MGC2488 3' TGTAGTGGAAAGAAGCAT 2045
                                        G
                    ATG TTCTTTCCG TACA
                    TAC AAGAAAGGT ATGT
                     G
                          G
GAM317 CX3CR1 3' ACTGCCTACTGCATCGAGTCA 2891
                                          TCCCTTAA
                    TGACTCG
                             TAGGCAGT
                    ACTGAGC ATCCGTCA
                       TACGTC__
GAM317 WNT14 3' CTGCAAGGGACGAGTC
                                         AATAG
                               1014
                    GACTCGTCCCTT GCAG
                    CTGAGCAGGGAA CGTC
GAM317 FLJ20275 3' TACTGCCTTCATAAGATCAAGT 1745
                                          CGTCC AT
                     TGACT CTTA AGGCAGTA
        CA
                    ACTGA GAAT TCCGTCAT
                      ACTA_ ACT
                                      CCC A
GAM317 FLJ22390 5' TACTGCCTATCAAACG
                                2002
                    CGT TT ATAGGCAGTA
                    GCA AA TATCCGTCAT
                     ___ C
GAM318 LOC120864 5' CAAGGTCCAAACTGATATAA 2986
                                             CGTAG
                    TTGTATCAGTTT TCTTG
                    AATATAGTCAAA GGAAC
                         CCT
GAM319 KIAA0626 3' AACATCAGGGTGCAGAATTGAT 1954
                                           C_ A_
                    ATCGATTC CAT TGATGTT
                    TAGTTAAG GTG ACTACAA
                       AC GG
GAM319 KIAA1239 3' AACATCATGATTATTGATG 2914
                                         TCCCA
```

CATCGAT TATGATGTT

```
GTAGTTA GTACTACAA
                       TTA__
                                            TTCCC
GAM319 LOC201475 5' AACATCATATATTTTGATGTTA 3428
                    TAACATCGA ATATGATGTT
                     ATTGTAGTT TATACTACAA
                        TTA
GAM320 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                            _ AAA
                                        Α
                    TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                        Α
GAM320 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
        Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
GAM320 SELE 3' AAAACTCTCCTACACTTCCATT 747
                                          _ C AAAA
                     TGATGGA GT GTA AGTTTT
        Α
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
                                           C AAAA
GAM320 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                    TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C_
GAM320 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                                         Α
                    TG TGGAGTCGTA AAGT
                    AC GCCTCAGCAT TTCG
                     С
                          С
GAM320 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                               _ A A
                    TG TGGAGTC GT AA AAGTT
                    AC ACCTCAG CA TT TTTAA
                     CTCC
GAM320 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                              AAA
                    TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          C__
GAM321 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                              AAA
                                       Α
                    TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     C A
GAM321 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
```

TGATGGAGT TA AAAAGTTTT

Α

```
ACTACCTCA AT TTTTTAAAA
                        AA C
                                         _ C AAAA
GAM321 SELE 3' AAAACTCTCCTACACTTCCATT 747
        Α
                     TGATGGA GT GTA AGTTTT
                    ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM321 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                    TGATGGAGT GTAA GTTTT
                    ACTACCTTA CGTT CAAAA
                        С
GAM321 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                    TG TGGAGTCGTA AAGT
                    AC GCCTCAGCAT TTCG
                     С
                          С
GAM321 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                              _ A A
                    TG TGGAGTC GT AA AAGTT
                    AC ACCTCAG CA TT TTTAA
                     CTCC
GAM321 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                             AAA
                                         Α
                    TG TGGAGTCGTA AAGT
                    AC GCCTCAGCAT TTCG
                     С
                          С
GAM322 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                             AAA
                                      Α
                    TG TGGAGT CGTAA AGTTTT
                    AC ACTTCA GTATT TCAAAA
                     С
                        Α
                                           CG A
GAM322 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
        Α
                     TGATGGAGT TA AAAAGTTTT
                    ACTACCTCA AT TTTTTAAAA
                        AA C
GAM322 SELE
            3' AAAACTCTCCTACACTTCCATT 747
                                          _ C AAAA
                     TGATGGA GT GTA AGTTTT
                    ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM322 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                          C AAAA
                    TGATGGAGT GTAA GTTTT
                    ACTACCTTA CGTT CAAAA
                        _ C_
```

GAM322 LOC222671 5' GCTTCTACGACTCCGCCA 3582

TG TGGAGTCGTA AAGT

Α

AAA

```
AC GCCTCAGCAT TTCG
                       С
                            C__
GAM322 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                                 АА
                      TG TGGAGTC GT AA AAGTT
                      AC ACCTCAG CA TT TTTAA
                          TCC
GAM322 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                           Α
                                                 AAA
                      TG TGGAGTCGTA AAGT
                      AC GCCTCAGCAT TTCG
                       С
                            С
GAM323 CAPN2
             3' AAAACTTTATGAACTTCACCA 855
                                                 AAA
                      TG TGGAGT CGTAA AGTTTT
                      AC ACTTCA GTATT TCAAAA
                       С
                          Α
GAM323 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                              CG A
                      TGATGGAGT TA AAAAGTTTT
         Α
                      ACTACCTCA AT TTTTTAAAA
                         AA C
GAM323 SELE
             3' AAAACTCTCCTACACTTCCATT 747
                                             C AAAA
                      TGATGGA GT GTA AGTTTT
                      ATTACCT CA CAT TCAAAA
                         T CCTC
GAM323 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                             C AAAA
                      TGATGGAGT GTAA GTTTT
                      ACTACCTTA CGTT CAAAA
                          С
GAM323 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                                 AAA
                      TG TGGAGTCGTA AAGT
                      AC GCCTCAGCAT TTCG
                       С
                            C__
GAM323 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                                 _ A A
                      TG TGGAGTC GT AA AAGTT
                      11 1111111 11 11 11111
                      AC ACCTCAG CA TT TTTAA
                           TCC
GAM323 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                           Α
                                                 AAA
                      TG TGGAGTCGTA AAGT
                      AC GCCTCAGCAT TTCG
                       С
                            \mathsf{C}_{-}
GAM324 CAPN2
             3' AAAACTTTATGAACTTCACCA 855
                                           Α
                                                 AAA
                      TG TGGAGT CGTAA AGTTTT
```

```
AC ACTTCA GTATT TCAAAA
                     С
                         Α
GAM324 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                          CG A
        Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
            3' AAAACTCTCCTACACTTCCATT 747
GAM324 SELE
                                          _ C AAAA
                     TGATGGA GT GTA AGTTTT
        Α
                     ATTACCT CA CAT TCAAAA
                       T CCTC
GAM324 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                    TGATGGAGT GTAA GTTTT
                    ACTACCTTA CGTT CAAAA
                        С
GAM324 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                    TG TGGAGTCGTA AAGT
                    AC GCCTCAGCAT TTCG
                     С
                          C__
GAM324 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                              ΑА
                    TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                         TCC
GAM324 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                         Α
                                              AAA
                    TG TGGAGTCGTA AAGT
                    AC GCCTCAGCAT TTCG
                     С
                          С
                                            _ AAA
GAM325 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                    TG TGGAGT CGTAA AGTTTT
                    AC ACTTCA GTATT TCAAAA
                     C A
GAM325 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
GAM325 SELE 3' AAAACTCTCCTACACTTCCATT 747
                                          _ C AAAA
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM325 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                    TGATGGAGT GTAA GTTTT
```

```
ACTACCTTA CGTT CAAAA
                        _ C___
GAM325 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                         Α
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                          С
GAM325 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                              _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                         TCC
GAM325 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                              AAA
                                         Α
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                          С
GAM326 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                            _ AAA
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     C A _
GAM326 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
                     TGATGGAGT TA AAAAGTTTT
         Α
                     ACTACCTCA AT TTTTTAAAA
                        AA C
GAM326 SELE 3' AAAACTCTCCTACACTTCCATT 747
                                          C AAAA
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM326 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C__
GAM326 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                          C__
GAM326 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                               _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                     С
                         TCC
GAM326 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                         Α
                                              AAA
                     TG TGGAGTCGTA AAGT
```

```
AC GCCTCAGCAT TTCG
                      С
                          C__
                                            _ AAA
GAM327 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                       Α
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     C A
GAM327 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
                     TGATGGAGT TA AAAAGTTTT
        Α
                     ACTACCTCA AT TTTTTAAAA
                        AA C
GAM327 SELE
            3' AAAACTCTCCTACACTTCCATT 747
                                          _ C AAAA
        Α
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T CCTC
GAM327 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C___
GAM327 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                                         Α
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          С
GAM327 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                               ΑА
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                     С
                         TCC
GAM327 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                     С
                          C__
GAM328 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                        Α
                                               AAA
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     С
                        Α
GAM328 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
        Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
                                          _ C AAAA
GAM328 SELE
            3' AAAACTCTCCTACACTTCCATT 747
                     TGATGGA GT GTA AGTTTT
        Α
```

```
ATTACCT CA CAT TCAAAA
                        T _ CCTC
GAM328 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                         _ C__
GAM328 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                               AAA
                                          Α
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           С
GAM328 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                                _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                      С
                          TCC
GAM328 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                          Α
                                               AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           C__
GAM329 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                                AAA
                                         Α
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                         Α
GAM329 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                             CG A
                      TGATGGAGT TA AAAAGTTTT
         Α
                     ACTACCTCA AT TTTTTAAAA
                         AA C
                                           _ C AAAA
            3' AAAACTCTCCTACACTTCCATT 747
GAM329 SELE
                      TGATGGA GT GTA AGTTTT
         Α
                     ATTACCT CA CAT TCAAAA
                        T _ CCTC
GAM329 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                            C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                         _ C_
GAM329 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                          Α
                                               AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           \mathsf{C}_{-}
GAM329 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                            Α
                                                _{-} A A
                     TG TGGAGTC GT AA AAGTT
```

11 1111111 11 11 11111

```
AC ACCTCAG CA TT TTTAA
                         TCC
                      C
GAM329 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                          Α
                                               AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      C
                           С
GAM330 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                               AAA
                                         Α
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                         Α
GAM330 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                             CG A
         Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                         AA C
GAM330 SELE
            3' AAAACTCTCCTACACTTCCATT 747
                                           C AAAA
                     TGATGGA GT GTA AGTTTT
         Α
                     ATTACCT CA CAT TCAAAA
                        T _ CCTC
GAM330 KIAA0475 3' AAAACCTTGCATTCATCA 1570
                                            C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                         _ C_
GAM330 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                               AAA
                                          Α
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           С
GAM330 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                               ΑА
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                         TCC
                      С
GAM330 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                               AAA
                                          Α
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           C__
GAM331 ITGB7
            5' AGAGAAAGTCTGACTTGCCCCA 783
                                          AAAA_{\_}
                                                TTAT
         C
                      GT AAGTT CTTTCTCT
                     CA TTCAG GAAAGAGA
                      CCCCG TCT_
GAM331 RPP30
             3' AGAGAAAGACAACTGTTCTGCG 1297
                                           A A TTA
                     CGTA AA AGTT TCTTTCTCT
```

```
GCGT TT TCAA AGAAAGAGA
                       CG C_
GAM331 FLJ13263 3' AGAGAAAGATTTTAGCTTTT 2139
                                           TT
                     AAAAGTT ATCTTTCTCT
                     TTTTCGA TAGAAAGAGA
                        TTT
GAM331 FLJ23074 5' AGAGAAAGACAAGGGTTT 2133
                                         G A
                     AAA TTTT TCTTTCTCT
                     TTT GGAA AGAAAGAGA
                      G C
GAM331 GTF2A2 3' AGAAAAAATATGACTTTTTTAC 1119
                                              T C
                     GTAAAAAAGTT TAT TTTCT
                     CATTTTTCAG ATA AAAGA
                         T AA
GAM331 IMP-2 3' AGAGAAAGCAGGCTTTTCTA 1308
                                             TAT
                     TA AAAAGTTT CTTTCTCT
                     AT TTTTCGGA GAAAGAGA
                      С
                          C__
GAM331 KIAA0212 3' AGAAAGGTAAATCTTTTAC 1518
                                           ΑТ
                     GTAAAAA G TTTATCTTTCT
                     CATTTTT C AAATGGAAAGA
                        Т
GAM331 OSBPL2 5' AGAGAAAGTTTGTAAAATTCCT 1566
                                           AAA
         TAC
                       GTAA AGTTTTAT CTTTCTCT
                     CATT TTAAAATG GAAAGAGA
                       CC_{-}
                             TTT
GAM331 OSBPL2 5' AGAGAAAGTTTGTAAAATTCCT 2482
                                           AAA
         TAC
                       GTAA AGTTTTAT CTTTCTCT
                     CATT TTAAAATG GAAAGAGA
                       CC_{-}
                            TTT
             3' AGAAAGAATACTTTTTAT 1489
GAM331 RBM9
                                           TTTA
                     GTAAAAAAGT TCTTTCT
                     TATTTTTCA AGAAAGA
                         TA
GAM331 LOC254826 3' AGAGAAAGTCTTGCTTTTT 3732
                                            TTTAT
                     AAAAAGT CTTTCTCT
                     TTTTTCG GAAAGAGA
                        TTCT_
GAM332 DSC3
             3' TAAAATCTATGTGTTTTAGACT 871
                                          AGT
                                                 Α
         TA
                      TAAGTT AATACATA ATTTTA
```

```
ATT
                              C
GAM332 DSC3
             3' TAAAATCTATGTGTTTTAGACT 2060
                                            AGT
                                                   Α
         TA
                       TAAGTT AATACATA ATTTTA
                      ATTCAG TTGTGTAT TAAAAT
                        ATT
                              C
GAM332 FLJ20366 3' AAGTTTACATGTACTAACTTA 1751
                                              ATACA
                      TAAGTTAGTA TAAATTT
                      ATTCAATCAT ATTTGAA
                          GTAC
GAM333 CAPN2
             3' AAAACTTTATGAACTTCACCA 855
                                                 AAA
                                         Α
                      TG TGGAGT CGTAA AGTTTT
                      AC ACTTCA GTATT TCAAAA
                      С
                          Α
GAM333 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                              CG A
                      TGATGGAGT TA AAAAGTTTT
         Α
                      ACTACCTCA AT TTTTTAAAA
                         AA C
GAM333 SELE
             3' AAAACTCTCCTACACTTCCATT 747
                                            _ C AAAA
                      TGATGGA GT GTA AGTTTT
                      ATTACCT CA CAT TCAAAA
                        T CCTC
GAM333 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                             C AAAA
                      TGATGGAGT GTAA GTTTT
                      ACTACCTTA CGTT CAAAA
                          С
GAM333 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                                AAA
                      TG TGGAGTCGTA AAGT
                      AC GCCTCAGCAT TTCG
                       С
                            C__
GAM333 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                           Α
                                                 _ A A
                      TG TGGAGTC GT AA AAGTT
                      11 1111111 11 11 11111
                      AC ACCTCAG CA TT TTTAA
                          TCC
GAM333 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                           Α
                                                AAA
                      TG TGGAGTCGTA AAGT
                      AC GCCTCAGCAT TTCG
                       С
                            \mathsf{C}_{-}
GAM334 CAPN2
             3' AAAACTTTATGAACTTCACCA 855
                                          Α
                                                 AAA
```

TG TGGAGT CGTAA AGTTTT

ATTCAG TTGTGTAT TAAAAT

```
AC ACTTCA GTATT TCAAAA
                     С
                         Α
GAM334 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                          CG A
        Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
            3' AAAACTCTCCTACACTTCCATT 747
GAM334 SELE
                                          _ C AAAA
                     TGATGGA GT GTA AGTTTT
        Α
                     ATTACCT CA CAT TCAAAA
                       T CCTC
GAM334 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                    TGATGGAGT GTAA GTTTT
                    ACTACCTTA CGTT CAAAA
                        С
GAM334 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                    TG TGGAGTCGTA AAGT
                    AC GCCTCAGCAT TTCG
                     С
                          C__
GAM334 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                              ΑА
                    TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                         TCC
GAM334 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                         Α
                                              AAA
                    TG TGGAGTCGTA AAGT
                    AC GCCTCAGCAT TTCG
                     С
                          С
                                            _ AAA
GAM335 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                    TG TGGAGT CGTAA AGTTTT
                    AC ACTTCA GTATT TCAAAA
                     C A
GAM335 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
GAM335 SELE 3' AAAACTCTCCTACACTTCCATT 747
                                          _ C AAAA
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM335 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                    TGATGGAGT GTAA GTTTT
```

```
ACTACCTTA CGTT CAAAA
                        _ C___
GAM335 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                         Α
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                          С
GAM335 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                         Α
                                              _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                         TCC
GAM335 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                          С
GAM336 CAPN2 3' AAAACTTTATGAACTTCACCA 855
                                             AAA
                     TG TGGAGT CGTAA AGTTTT
                     AC ACTTCA GTATT TCAAAA
                     C A _
GAM336 DAAM2
             3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
                     TGATGGAGT TA AAAAGTTTT
         Α
                     ACTACCTCA AT TTTTTAAAA
                        AA C
GAM336 SELE 3' AAAACTCTCCTACACTTCCATT 747
                                          C AAAA
                     TGATGGA GT GTA AGTTTT
                     ATTACCT CA CAT TCAAAA
                       T _ CCTC
GAM336 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                           C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        _ C__
GAM336 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                              AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                          C__
GAM336 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699 A
                                               _ A A
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                     С
                         TCC
GAM336 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                         Α
                                              AAA
                     TG TGGAGTCGTA AAGT
```

```
AC GCCTCAGCAT TTCG
                      С
                           C__
GAM337 FGF2 3' ATATTTTTGTGGCTGCTTTTT 884
                                          T_
                     AAAAAGT TTACAAAAATAT
                     TTTTTCG GGTGTTTTTATA
                        TC
GAM337 MPHOSPH1 3' ATATTTTTATAAGGCTTTTTT 1670
                                               C
                     AAAAAAGTTTTA AAAAATAT
                     TTTTTTCGGAAT TTTTTATA
GAM337 FLJ11274 3' ATATCTTTGTAGTAGCTTTTTT 1820
                                                  Α
         TA
                      TAAAAAAGTT TTACAAA ATAT
                     ATTTTTTCGA GATGTTT TATA
                             C
                          Т
GAM337 FLJ31101 3' ATATTTTTGTAAAATGTATTTG 1771
                                           AAAA
         Т
                      ATAAA GTTTTACAAAAATAT
                     TGTTT TAAAATGTTTTTATA
                       ATG
GAM337 GPT2
             3' ATATTTTTGTAACAATTGCTTT 2417
                                            Т
                       AAAAAGT TTACAAAAATAT
         TTT
                     TTTTTTCG AATGTTTTTATA
                        TTAAC
GAM337 RMP
            3' TTTTGTAAAACTTTTTTTC 2430 T
                     A AAAAAAGTTTTACAAAA
                     C TTTTTTTCAAAATGTTTT
                     Т
GAM337 RMP
            3' TTTTGTAAAACTTTTTTTC 1059 T
                     A AAAAAAGTTTTACAAAA
                     C TTTTTTTCAAAATGTTTT
                     Т
             3' ATATTTTTGTCTTACTTTTTT 2328
GAM337 SOX6
                                           TTT
                     AAAAAAGT ACAAAAATAT
                     TTTTTTCA TGTTTTTATA
                         TTC
GAM337 LOC136288 3' ATATTTCTGAGGCTTTTTTTGT 3018
                                                 CAA
                     ATAAAAAAGTTTTA AAATAT
                     TGTTTTTTCGGAGT TTTATA
                           C_{-}
GAM338 AICDA 3' AGAAAGAGAACAATATTT 1922
                                          TTTA
                     AAATATT TTCTCTTTCT
```

```
TTTATAA AAGAGAAAGA
                       C___
GAM338 AS3 3' AGAAAGATTTAAAGTATTTTA 1652
                                         TATTC
                    TAAAATATTTT TCTTTCT
                    ATTTTATGAAA AGAAAGA
                         TTT
GAM338 EPM2A 3' AGAAAGAGAAGTGTTTT 1234
                                        TTTTA
                    AAAATAT TTCTCTTTCT
                    TTTTGTG AAGAGAAAGA
GAM338 HRH1 3' AGAAAGAGAAATGAAATATTTT 780
                                           TA
                    AAAATATTTT TTCTCTTTCT
                    TTTTATAAAG AAGAGAAAGA
                        TA
GAM338 MAPK14 3' GAGAAAGGGCAAATTATTTTA 818
                                           T TATT
                    TAAAATA TTT CTCTTTCTC
                    ATTTTAT AAA GGGAAAGAG
                       T C___
GAM338 MAPK14 3' GAGAAAGGGCAAATTATTTTA 2465
                                           T TATT
                    TAAAATA TTT CTCTTTCTC
                    ATTTTAT AAA GGGAAAGAG
                       T C
GAM338 MAPK14 3' GAGAAAGGGCAAATTATTTTA 2466
                                           T TATT
                    TAAAATA TTT CTCTTTCTC
                    ATTTTAT AAA GGGAAAGAG
                       T C
GAM338 NOTCH2 3' GAGAATTAAAATATTTTA 2058
                                           Т
                    TAAAATATTTT ATTCTC
                    ATTTTATAAAA TAAGAG
                        Т
GAM338 SIM1
            3' GAGAAAGAGAGAGATA 1181
                                       TAT
                    TATTTT TCTCTTTCTC
                    ATAGAG AGAGAAAGAG
GAM338 C11orf25 3' AAAGAGAAAAATATTTTA 2193
                                          TAT
                    TAAAATATTTT TCTCTTT
                    ATTTTATAAAA AGAGAAA
GAM338 DKFZP564D116 3' GAAAAGCAATAAAAATATTTTA 2938
                                                  _ C
```

TAAAATATTTTTATT CT TTTC

```
ATTTTATAAAAATAA GA AAAG
                           C _
GAM338 DSCR6 3' GAGAAAGAGAAGGTCTATGTCA 1866 A TTTTA
                     A ATAT TTCTCTTTCTC
                     A TGTA AAGAGAAAGAG
                     C TCTGG
GAM338 FLJ10006 3' GAGAAAGAAGATATTTTA 3152
                                            Α
                     TAAAATATTTTT TTCTC
                     ATTTTATAGAAG AAGAG
GAM338 HTPAP 3' GAGAATAAAAAGATTTTA 2255
                     TAAAAT TTTTTATTCTC
                     ATTTTA AAAAATAAGAG
GAM338 KIAA0979 3' AGAAAGATTTAAAGTATTTTA 1601
                                             TATTC
                     TAAAATATTTT TCTTTCT
                     ATTTTATGAAA AGAAAGA
                         TTT
GAM338 KIAA1634 3' GAGAATAAAACTATTTA 2657
                                          Т
                     TAAAATA TTTTATTCTC
                     ATTTTAT AAAATAAGAG
GAM338 PTD012 3' GAGATTGGGAACAAAATAT 1465
                                              TT
                     ATATTTTT TTCTC TCTC
                     TATAAAAA AAGGG AGAG
                        C TT
GAM338 SAMHD1 3' AGAAAGAGAAAGAAATAT 2593
                                           Α
                     ATATTTTT TTCTCTTTCT
                     TATAAAGA AAGAGAAAGA
GAM338 LOC196758 3' GAGAAAGAGCAGGTGAAATATT 3410
                                               TATT_
         TT
                      AAAATATTTT CTCTTTCTC
                     TTTTATAAAG GAGAAAGAG
                         TGGAC
GAM338 LOC219790 3' GAGAATAAAAATAATTTA 3520
                                         Α
                     TAAA TATTTTTATTCTC
```

ATTT ATAAAAATAAGAG

TG TGGAGT CGTAA AGTTTT

Α

AAA

Α

3' AAAACTTTATGAACTTCACCA 855

GAM339 CAPN2

```
AC ACTTCA GTATT TCAAAA
                      С
                         Α
GAM339 DAAM2 3' AAAATTTTTCTAAAACTCCATC 3559
                                            CG A
        Α
                     TGATGGAGT TA AAAAGTTTT
                     ACTACCTCA AT TTTTTAAAA
                        AA C
            3' AAAACTCTCCTACACTTCCATT 747
GAM339 SELE
                                           _ C AAAA
                     TGATGGA GT GTA AGTTTT
        Α
                     ATTACCT CA CAT TCAAAA
                       T CCTC
GAM339 KIAA0475 3' AAAACCTTGCATTCCATCA 1570
                                            C AAAA
                     TGATGGAGT GTAA GTTTT
                     ACTACCTTA CGTT CAAAA
                        С
GAM339 LOC222671 5' GCTTCTACGACTCCGCCA 3582
                                               AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           C__
GAM339 LOC254901 5' AATTTCTTCACTGACTCCACCA 3699
                                          Α
                                               ΑА
                     TG TGGAGTC GT AA AAGTT
                     AC ACCTCAG CA TT TTTAA
                         TCC
GAM339 LOC257615 5' GCTTCTACGACTCCGCCA 3749
                                          Α
                                               AAA
                     TG TGGAGTCGTA AAGT
                     AC GCCTCAGCAT TTCG
                      С
                           С
                                           G
GAM340 ADCY6 3' TTGTACAATATTTTGTACAAAG 1617
                                               TTCAC
        Α
                     TCTTTG TACAAAAT ACAA
                     AGAAAC ATGTTTTA TGTT
                           TAACA
GAM340 ADCY6
            3' TTGTACAATATTTTGTACAAAG 1933
                                           G
                                               TTCAC
         Α
                     TCTTTG TACAAAAT ACAA
                     AGAAAC ATGTTTTA TGTT
                           TAACA
GAM340 APBB2
             5' TGAGCTTTGTACCAAAGA 2946
                                            ΑT
                     TCTTTGGTACAAA TTCA
                     AGAAACCATGTTT GAGT
                          \mathsf{C}_{-}
GAM340 ATP8B2 3' TGATTTTTATACCAAAGA 2716
                                          C TT
                     TCTTTGGTA AAAA TCA
```

```
AGAAACCAT TTTT AGT
                       A T_
GAM340 CEACAM1 3' TGTGTGAACTAGCAAAGA 848 G CAAAAT
                    TCTTTG TA TTCACACA
                    AGAAAC AT AAGTGTGT
                      GC
GAM340 CHST1 3' TGTGATATTTCTTTGTGCCAAA 1046
                                           ____ T
                    TTTGGTACAAA AT TCACA
                    AAACCGTGTTT TA AGTGT
                        CTT T
GAM340 FBXL7 3' TGCGTGTTTTCCACCAAAGA 1425
                                        AC TTT A
                    TCTTTGGT AAAA CACCA
                    AGAAACCA TTTT GTG GT
                       CC C
GAM340 HOXC9 3' TGCGTGCAGATTTTGTAC 2592
                                         _ A
                    GTACAAAATTT CAC CA
                    CATGTTTTAGA GTG GT
                        CC
GAM340 IGF1 3' TGTGGCATTTGTACCAAA 763
                                       ATT
                    TTTGGTACAAA TCACA
                    AAACCATGTTT GGTGT
                        AC
GAM340 ITGAL 3' TGTGAAATTCTGTCCAAA 907
                                      T A
                    TTTGG ACA AATTTCACA
                    AAACC TGT TTAAAGTGT
                     С
                                       A AAT C
GAM340 LBR
           3' TGTACTGGATTGCACCAAGGA 2522
                    TCTTTGGT CAA TTCA ACA
                    AGGAACCA GTT AGGT TGT
                       C ___ CA
GAM340 MIP
           3' TGTGTGAAATCTTTCAAG 1399
                                     TACAAA
                    TTTGG ATTTCACACA
                    GAACT TAAAGTGTGT
                     TTC_
GAM340 RLN2
           3' TGTTGGTTGTACCAAA
                              1175
                                       AATT C
                    TTTGGTACAA TCA ACA
                    AAACCATGTT GGT TGT
```

GAM340 SART2 3' TGATTTTCATACCAAAGA 1444

TCTTTGGTA AAA TCA

CA TT

```
AGAAACCAT TTT AGT
                         AC T_
GAM340 TPK1 3' AAATTTTGCTACCAAAGA 1987
                     TCTTTGGTA CAAAATTT
                     AGAAACCAT GTTTTAAA
                        C
GAM340 TRIP12 3' TGTGTGAAATTTAAAAAAGG 1094
                                          GGTACA
                     TCTTT AAATTTCACACA
                         |||||
                     GGAAA TTTAAAGTGTGT
                       AAA
GAM340 BRD3
            3' GTGTGAGATTCGTACCGAAGA 1398
                                             AA
                     TCTTTGGTAC AATTTCACAC
                     AGAAGCCATG TTAGAGTGTG
                         С
GAM340 FLJ13397 3' GTGTGAAATTTACTAGCAAA 2116
                                          G CA
                     TTTG TA AAATTTCACAC
                     AAAC AT TTTAAAGTGTG
                      G CA
GAM340 FLJ22202 3' TGTATCATTTTGTACCAAA 2103
                                             TTC
                     TTTGGTACAAAAT ACA
                     AAACCATGTTTTA TGT
                          CTA
GAM340 GROS1 3' TGTGTAGACAACCAAAGA 1986
                                           ACAAAATT
                     TCTTTGGT
                               TC ACACA
                     AGAAACCA
                                AG TGTGT
                        AC_{-}
                              Α
GAM340 KIAA0981 3' TGTGTAAAACTGCCAAGGA 2598
                                            CAAAA C
                     TCTTTGGTA TTT ACACA
                     AGGAACCGT AAA TGTGT
                         C____ A
GAM340 KIAA1243 3' TGTGACATGACCAAAGA 2978
                                           A AAATT
                     TCTTTGGT CA TCACA
                     AGAAACCA GT AGTGT
                        _ AC__
GAM340 KIAA1462 3' TTGTGTGAGAGGAACCCAAAGA 3524
                                             TACAAAA
                     TCTTTGG
                              TTTCACACAA
                     AGAAACC
                               AGAGTGTGTT
                        CAAGG_
GAM340 MGC1136 3' TTGTGTGAAACCCCTAGCATAG 2041
                                            T G CAAAA
        Α
                     TCT TG TA TTTCACACAA
```

```
T G CCCC
GAM340 MSTP043 3' TGTCTTTATTTTTACCAAAGA 2223
                                            C TTC
                     TCTTTGGTA AAAAT ACA
                     AGAAACCAT TTTTA TGT
                        _ TTTC
GAM340 Nup43 3' TGTGCAAAATTTTAGTATCAGA 2075
                                               CA
                     TTTGGTAC AAAATTT CACA
                     AGACTATG TTTTAAA GTGT
                        Α
                            AC
GAM340 RPS6KA4 3' TGTGCAATTACGTCCACCAAAG 1072
                                              __ AA T
         Α
                     TCTTTGGT AC AATT CACA
                     AGAAACCA TG TTAA GTGT
                        CC CA C
GAM340 SLC17A6 3' TGAAACTTGTGCCACAGA 1911
                                         Т
                                             AA
                     TCT TGGTACAA TTTCA
                     AGA ACCGTGTT AAAGT
                      С
                          \mathsf{C}^-
GAM340 TERA
            3' TGTATGAATAGTACCAAAG 1949
                                          AAAAT C
                     CTTTGGTAC TTCA ACA
                     GAAACCATG AAGT TGT
                        AT___ A
GAM340 VAV3 3' TTGTGTAGAGTTCTAATACCAA 1273
                                            CAA TC
                       TCTTTGGTA AATT ACACAA
         AGA
                     AGAAACCAT TTGA TGTGTT
                        AATC GA
                                             C T
GAM340 LOC120892 3' TGCAATTTTTTTTACCAAAGA 2987
                     TCTTTGGTA AAAATT CA
                     AGAAACCAT TTTTAA GT
                        TTT C
GAM340 LOC1554343' TTGTGTGATTTCGTACCAAA 3376
                                            A TT
                     TTTGGTAC AAA TCACACAA
                     AAACCATG TTT AGTGTGTT
                        C _
GAM340 LOC169966 3' ATTTTGCCTTTACCAAAGA 3252
                     TCTTTGGTA CAAAAT
                     AGAAACCAT GTTTTA
                        TTCC
GAM340 LOC221272 3' TGTCTGCTCTGTACCAGAGA 3616
                                              AAATTT C
                     TCTTTGGTACA CA ACA
```

AGA AC AT AAAGTGTGTT

```
AGAGACCATGT GT TGT
                         CTC___ C
GAM340 LOC221968 3' TTGTGTGAAATTTTGTCGAA 3569
                                          GT
                    TTTG ACAAAATTTCACACAA
                    AAGC TGTTTTAAAGTGTGTT
GAM340 LOC86651 5' TTGTGTGAAAGATGTTTCATAC 2830
                                            CA __
        CAAGGA
                        CTTTGGTA AAAT TTCACACAA
                    GGAACCAT TTTG AAGTGTGTT
                       AC TAGA
GAM340 LOC90322 3' GAGATTCCATACTAAAGA 2632
                                           CAA
                    TCTTTGGTA AATTTC
                    AGAAATCAT TTAGAG
                        ACC
GAM341 MYO1E 5' ATGGAGTCCCCTCTAGGGTT 1168
                                        ATC A A
                    GACC GA GG GACTCCAT
                    TTGG CT CC CTGAGGTA
                      GAT C _
GAM341 ROCK2 3' ATGAAGTCTTTTAACAGTCTC 2737
                                          CATCGA
                                                  C
                    GAGAC AGGAGACT CAT
                    CTCTG TTTTCTGA GTA
                      ACAA_
GAM341 MGC15937 5' GAGTTTCTTCTTCAAGGTCTCA 2383
                                            ATC
                    TGAGACC GAAGGAGA CTC
                    ACTCTGG CTTCTTCT GAG
                       AA
                            TT
                                        ACC G A
GAM341 STK16 5' GAGCTCTTCGGTAGCCTCA 2937
                    TGAG ATCGAAG AG CTC
                    ACTC TGGCTTC TC GAG
                      CGA
GAM341 LOC148029 5' GGAGTCTCCATCCTCA
                                  3116
                                        ACCATC A
                    TGAG GA GGAGACTCC
                    ACTC CT CCTCTGAGG
                          _ A
GAM341 LOC169436 5' TGGAGTTCAATGAGCTCA 3261
                                         AC C AGGAG
                    TGAG CAT GA ACTCCA
                    ACTC GTA CT TGAGGT
                      GA A _
GAM341 LOC256267 3' ATGGAGTCTCCCTCTGTC 3713
                                         CATC A
                    GAC GA GGAGACTCCAT
```

```
CTG CT CCTCTGAGGTA
                      T___ C
GAM341 LOC257426 3' GAGTCCTTCGGTGGCCTCA 2755
                                           Α
                                                GA
                     TGAG CCATCGAAGGA CTC
                     ACTC GGTGGCTTCCT GAG
                      С
GAM341 LOC92466 3' ATGGAGTCTCCCTCTGTC 2858
                                         CATC A
                     GAC GA GGAGACTCCAT
                     CTG CT CCTCTGAGGTA
                      T C
GAM342 MME
            3' AAAAAAGTTACAGAAATA 785
                                          AA
                     TATTTTTGTA ACTTTTTTT
                     ATAAAGACAT TGAAAAAA
GAM342 MME
            3' AAAAAAGTTACAGAAATA 1377
                                           AA
                     TATTTTTGTA ACTTTTTTT
                     ATAAAGACAT TGAAAAAA
GAM342 MME
            3' AAAAAAGTTACAGAAATA 1378
                                           AA
                     TATTTTTGTA ACTTTTTTT
                     ATAAAGACAT TGAAAAAA
GAM342 MME
            3' AAAAAAAGTTACAGAAATA 1379
                                           AA
                     TATTTTTGTA ACTTTTTTT
                     ATAAAGACAT TGAAAAAA
GAM342 DKFZP434C2123' AAAAAGTACACAGAAATATT 2832
                                                AAA
                     AATATTTTTGT ACTTTTT
                     TTATAAAGACA TGAAAAA
                         CA_
GAM342 FLJ11275 3' TAAAATGGGATTTATAAAAATA 1821
                                              A TT
                      AATATTTTTGTAAA CT TTTTA
                     TTATAAAAATATTT GG AAAAT
                          A GT
GAM342 GOLPH3 3' TAAAAAAAGTTTTACTGCCATA 1981
                                           TTTT
        TT
                      AATAT GTAAAACTTTTTTA
                     TTATA CATTTTGAAAAAAAT
                       CCGT
GAM342 KIAA0563 5' TAAAAAAAGGAGCAAAAGTAT 1565
                                             AAAA
                     ATATTTTTGT CTTTTTTTA
```

TATGAAAACG GAAAAAA	AT
AG	
GAM342 TAF2 3' AGAAAGTTTGACAAAAATA 997	Α
TATTTTGT AAACTTTTT	
ATAAAAACA TTTGAAAGA	
G	NE AAAA
GAM342 LOC147071 5' TAAAAAAAGGAGCAAAAGTAT 296 ATATTTTTGT CTTTTTTTA	
	•
	ΔT
AG	1 1
GAM342 LOC147639 5' AAAAGTGCTGCAAAAATATT 3110) AA
AATATTTTGTA ACTTT	,,,,
TTATAAAAACGT TGAAAA	
CG	
GAM342 LOC201173 5' TAAAAAAAGGAGCAAAAGTAT 340	DS AAAA
ATATTTTGT CTTTTTTA	
TATGAAAACG GAAAAAA	AT
AG	
GAM342 LOC201220 5' TAAAAAAAGGAGCAAAAGTAT 340	06 AAAA
ATATTTTGT CTTTTTTA	•
TATGAAAACG GAAAAAA	AT
AG	
GAM343 MME 3' AAAAAAAGTTACAGAAATA 785	AA
TATTTTTGTA ACTTTTTTT	
	1
ATAAAGACAT TUAAAAAA	`
GAM343 MME 3' AAAAAAAGTTACAGAAATA 1377	AA
TATTTTTGTA ACTTTTTT	,
ATAAAGACAT TGAAAAAA	4
_	
GAM343 MME 3' AAAAAAAGTTACAGAAATA 1378	AA
TATTTTTGTA ACTTTTTT	
ATAAAGACAT TGAAAAAA	4
_	
GAM343 MME 3' AAAAAAAGTTACAGAAATA 1379	AA
TATTTTTGTA ACTTTTTTT	

ATAAAGACAT TGAAAAAA

AATATTTTTGT ACTTTTT

AAA

GAM343 DKFZP434C212 3' AAAAAGTACACAGAAATATT 2832

TTATAAAGACA TGAAAAA

CA

GAM343 FLJ11275 3' TAAAATGGGATTTATAAAAATA 1821 A TT TT AATATTTTTGTAAA CT TTTTA TTATAAAAATATTT GG AAAAT A GT GAM343 GOLPH3 3' TAAAAAAAGTTTTACTGCCATA 1981 TTTT TT AATAT GTAAAACTTTTTTTA TTATA CATTTTGAAAAAAT CCGT GAM343 KIAA0563 5' TAAAAAAAGGAGCAAAAGTAT 1565 **AAAA** ATATTTTTGT CTTTTTTTA TATGAAAACG GAAAAAAAT AG GAM343 TAF2 3' AGAAAGTTTGACAAAAATA 997 Α TATTTTTGT AAACTTTTT ATAAAAACA TTTGAAAGA G GAM343 LOC147071 5' TAAAAAAAGGAGCAAAAGTAT 2965 **AAAA** ATATTTTTGT CTTTTTTTA TATGAAAACG GAAAAAAAT AG GAM343 LOC147639 5' AAAAGTGCTGCAAAAATATT 3110 AA AATATTTTGTA ACTTTT TTATAAAAACGT TGAAAA CG GAM343 LOC201173 5' TAAAAAAAGGAGCAAAAGTAT 3405 **AAAA** ATATTTTGT CTTTTTTA TATGAAAACG GAAAAAAAT AG__ GAM343 LOC201220 5' TAAAAAAAGGAGCAAAAGTAT 3406 **AAAA** ATATTTTTGT CTTTTTTTA TATGAAAACG GAAAAAAAT AG GAM344 MARK1 3' TATAATAAAACATGATTGCTTA 1857 TΑ TAC Α TTA CGATC GTTTTATTATA AAT GTTAG CAAAATAATAT TC TA_{-} GAM345 DKK1 3' AAAATACTAGCTTATTTTCTGA 1417 TAA TCAGAAAG AGGTT TATTTT

```
AGTCTTTT TTCGA ATAAAA
                        A TC_
GAM345 KERA 3' AAAATATTGAATGCTTTCT 1349
                                         AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G_
GAM345 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                             G TTAA
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
                         A TC
GAM345 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                            AAT
                     GAAAGAGGTTT ATTTT
                     CTTTCTCCAAA TAAAA
                         AGT
GAM345 DKFZP564I0422 3' AAAATATTGCATTCTTCTGAT 2196
                                              A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                        _ AC_
GAM345 EML4
            3' AAAATGTTTCCTCTTTCT 1876
                                          TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                         Τ
GAM345 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                          AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT_
GAM345 KIAA1054 3' AAAATGGTACCTCTTTC
                                  2820
                                           TTAA
                     GAAAGAGGT TATTTT
                     CTTTCTCCA GTAAAA
                         TG
GAM345 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                               TAA
                     TCAG AAGAGGTT TATTTT
                     AGTC TTCTTCGA ATAAAA
                           \mathsf{C}_{-}
GAM345 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                             AGG_
                     CAGAAAG TTTAATATTTT
                     GTCTTTC GAATTATAAAA
                        AATA
GAM345 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                             AAAG
```

ATCAG AGGTTTAATATTTT

Т

```
CAGG
                                            _ TAA
GAM346 DKK1 3' AAAATACTAGCTTATTTTCTGA 1417
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                         A TC
GAM346 KERA
             3' AAAATATTGAATGCTTTCT 1349
                                          AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                        G
GAM346 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                             G TTAA
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
                         A TC__
GAM346 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                            AAT
                     GAAAGAGGTTT ATTTT
                     CTTTCTCCAAA TAAAA
                          AGT
GAM346 DKFZP564I0422 3' AAAATATTGCATTCTTGAT 2196 A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                        _ AC_
GAM346 EML4
            3' AAAATGTTTCCTCTTTCT 1876
                                          TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                         T__
GAM346 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                            AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT
GAM346 KIAA1054 3' AAAATGGTACCTCTTTC
                                   2820
                                           TTAA
                     GAAAGAGGT TATTTT
                      111111111 111111
                      CTTTCTCCA GTAAAA
                         TG
GAM346 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                           Α
                                                TAA
                     TCAG AAGAGGTT TATTTT
                     AGTC TTCTTCGA ATAAAA
                       С
                           \mathsf{C}_{-}
GAM346 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                              AGG_{-}
```

CAGAAAG TTTAATATTTT

TAGTC TCCAAATTATAAAA

```
AATA
GAM346 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                            AAAG
         Т
                     ATCAG AGGTTTAATATTTT
                     TAGTC TCCAAATTATAAAA
                       CAGG
GAM347 DKK1
                                            _ TAA
            3' AAAATACTAGCTTATTTTCTGA 1417
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                        A TC
GAM347 KERA
             3' AAAATATTGAATGCTTTCT 1349
                                         AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G
GAM347 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                           G TTAA
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
                         A TC__
GAM347 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                            AAT
                     GAAAGAGGTTT ATTTT
                     CTTTCTCCAAA TAAAA
                         AGT
GAM347 DKFZP564I0422 3' AAAATATTGCATTCTTCTGAT 2196
                                              A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                        _ AC_
GAM347 EML4
            3' AAAATGTTTCCTCTTTCT 1876
                                          TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                         T___
GAM347 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                           AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT_
GAM347 KIAA1054 3' AAAATGGTACCTCTTTC
                                           TTAA
                                  2820
                     GAAAGAGGT TATTTT
                     CTTTCTCCA GTAAAA
                         \mathsf{TG}_{\_}
GAM347 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                          Α
                                               TAA
```

TCAG AAGAGGTT TATTTT

GTCTTTC GAATTATAAAA

```
AGTC TTCTTCGA ATAAAA
                      С
                          C__
GAM347 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                             AGG
                     CAGAAAG TTTAATATTTT
                     GTCTTTC GAATTATAAAA
                       AATA
GAM347 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                             AAAG
        Т
                     ATCAG AGGTTTAATATTTT
                     TAGTC TCCAAATTATAAAA
                       CAGG
GAM348 DKK1
            3' AAAATACTAGCTTATTTTCTGA 1417
                                              TAA
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                        A TC_
GAM348 KERA 3' AAAATATTGAATGCTTTCT 1349
                                         AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G_
GAM348 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                            G TTAA
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
                        A TC
GAM348 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                           AAT
                     GAAAGAGGTTT ATTTT
                     CTTTCTCCAAA TAAAA
                         AGT
GAM348 DKFZP564I0422 3' AAAATATTGCATTCTTGAT 2196 A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                       _ AC_
GAM348 EML4
            3' AAAATGTTTCCTCTTTCT 1876
                                         TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                        T
GAM348 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                           AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT_
GAM348 KIAA1054 3' AAAATGGTACCTCTTTC
                                  2820
                                          TTAA
                     GAAAGAGGT TATTTT
```

```
CTTTCTCCA GTAAAA
                        TG
GAM348 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                              TAA
                     TCAG AAGAGGTT TATTTT
                     AGTC TTCTTCGA ATAAAA
                      C
                          С
GAM348 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                             AGG
                     CAGAAAG TTTAATATTTT
                     GTCTTTC GAATTATAAAA
                       AATA
GAM348 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                            AAAG
        Т
                     ATCAG AGGTTTAATATTTT
                     TAGTC TCCAAATTATAAAA
                       CAGG
GAM349 DKK1
            3' AAAATACTAGCTTATTTTCTGA 1417
                                           TAA
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                        A TC_
GAM349 KERA
            3' AAAATATTGAATGCTTTCT 1349
                                         AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G
GAM349 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                                            G TTAA
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
                        A TC__
GAM349 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                           AAT
                     GAAAGAGGTTT ATTTT
                     CTTTCTCCAAA TAAAA
                         AGT
GAM349 DKFZP564I0422 3' AAAATATTGCATTCTTCTGAT 2196
                                             A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                        _ AC_
GAM349 EML4
            3' AAAATGTTTCCTCTTTCT 1876
                                         TTT
```

T__ GAM349 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990 AA GTTT ATCAG AGAG AATATTTT ||||| |||| ||||||

AGAAAGAGG AATATTTT

TCTTTCTCC TTGTAAAA

```
CG ATT
GAM349 KIAA1054 3' AAAATGGTACCTCTTTC
                                           TTAA
                                  2820
                     GAAAGAGGT TATTTT
                     CTTTCTCCA GTAAAA
                         TG
GAM349 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431 A
                                               TAA
                     TCAG AAGAGGTT TATTTT
                     AGTC TTCTTCGA ATAAAA
                       С
                           С
GAM349 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                             AGG
                     CAGAAAG TTTAATATTTT
                     GTCTTTC GAATTATAAAA
                        AATA
GAM349 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                             AAAG
         Т
                     ATCAG AGGTTTAATATTTT
                     TAGTC TCCAAATTATAAAA
                       CAGG
GAM350 DKK1
            3' AAAATACTAGCTTATTTTCTGA 1417
                                              TAA
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                        A TC
GAM350 KERA 3' AAAATATTGAATGCTTTCT 1349
                                         AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G
                                            G TTAA
GAM350 PPP1R12A 3' AAAATACTACATCTTTCTGG 931
                     TCAGAAAGA GT TATTTT
                     GGTCTTTCT CA ATAAAA
                         A TC
GAM350 S100B 3' AAAATTGAAAACCTCTTTC 1284
                                            AAT
                     GAAAGAGGTTT ATTTT
                     11111111111 11111
                     CTTTCTCCAAA TAAAA
                         AGT
GAM350 DKFZP564I0422 3' AAAATATTGCATTCTTCTGAT 2196
                                              A GTT
                     ATCAGAA GAG TAATATTTT
                     TAGTCTT CTT GTTATAAAA
                        _ AC_
            3' AAAATGTTTCCTCTTTCT 1876
GAM350 EML4
                                          TTT
                     AGAAAGAGG AATATTTT
```

TAGTC TCTC TTATAAAA

```
TCTTTCTCC TTGTAAAA
```

T___

GAM350 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990 AA GTTT

ATCAG AGAG AATATTTT

TAGTC TCTC TTATAAAA

TTAA

CG ATT

GAM350 KIAA1054 3' AAAATGGTACCTCTTTC 2820

GAAAGAGGT TATTTT

CTTTCTCCA GTAAAA

TG

GAM350 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431 A TAA

TCAG AAGAGGTT TATTTT

AGTC TTCTTCGA ATAAAA

С

GAM350 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011 AGG_

CAGAAAG TTTAATATTTT

GTCTTTC GAATTATAAAA

AATA

GAM350 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296 AAAG

T ATCAG AGGTTTAATATTTT

TAGTC TCCAAATTATAAAA

CAGG

GAM351 DKK1 3' AAAATACTAGCTTATTTTCTGA 1417 _ TAA

TCAGAAAG AGGTT TATTTT

AGTCTTTT TTCGA ATAAAA

A TC_

GAM351 KERA 3' AAAATATTGAATGCTTTCT 1349 AG

AGAAAG GTTTAATATTTT

TCTTTC TAAGTTATAAAA

 G_{-}

GAM351 PPP1R12A 3' AAAATACTACATCTTTCTGG 931 G TTAA

TCAGAAAGA GT TATTTT

GGTCTTTCT CA ATAAAA

A TC__

GAM351 S100B 3' AAAATTGAAAACCTCTTTC 1284 AAT

GAAAGAGGTTT ATTTT

CTTTCTCCAAA TAAAA

AGT

GAM351 DKFZP564I0422 3' AAAATATTGCATTCTTGAT 2196 A GTT

ATCAGAA GAG TAATATTTT

```
TAGTCTT CTT GTTATAAAA
                       _ AC_
GAM351 EML4 3' AAAATGTTTCCTCTTTCT 1876
                                         TTT
                     AGAAAGAGG AATATTTT
                     TCTTTCTCC TTGTAAAA
                        Т
GAM351 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990
                                           AA GTTT
                     ATCAG AGAG AATATTTT
                     TAGTC TCTC TTATAAAA
                       CG ATT_
GAM351 KIAA1054 3' AAAATGGTACCTCTTTC 2820
                                          TTAA
                     GAAAGAGGT TATTTT
                     CTTTCTCCA GTAAAA
                        TG
GAM351 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431
                                              TAA
                     TCAG AAGAGGTT TATTTT
                     AGTC TTCTTCGA ATAAAA
                      С
                          C__
GAM351 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011
                                             AGG
                     CAGAAAG TTTAATATTTT
                     GTCTTTC GAATTATAAAA
                       AATA
GAM351 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296
                                            AAAG
        Т
                     ATCAG AGGTTTAATATTTT
                     TAGTC TCCAAATTATAAAA
                       CAGG
                                           _ TAA
GAM352 DKK1
            3' AAAATACTAGCTTATTTTCTGA 1417
                     TCAGAAAG AGGTT TATTTT
                     AGTCTTTT TTCGA ATAAAA
                        A TC
GAM352 KERA
            3' AAAATATTGAATGCTTTCT 1349
                                         AG
                     AGAAAG GTTTAATATTTT
                     TCTTTC TAAGTTATAAAA
                       G_{-}
```

TCAGAAAGA GT TATTTT
||||||||| || ||||||
GGTCTTTCT CA ATAAAA
A TC__
GAM352 S100B 3' AAAATTGAAAACCTCTTTC 1284 AAT

G TTAA

GAM352 PPP1R12A 3' AAAATACTACATCTTTCTGG 931

GAAAGAGGTTT ATTTT

```
CTTTCTCCAAA TAAAA
```

AGT

GAM352 DKFZP564I0422 3' AAAATATTGCATTCTTCTGAT 2196 A GTT
ATCAGAA GAG TAATATTTT
||||||| ||| |||||||
TAGTCTT CTT GTTATAAAA
_ AC_

GAM352 EML4 3' AAAATGTTTCCTCTTTCT 1876 TTT

AGAAAGAGG AATATTTT

TCTTTCTCC TTGTAAAA

Т

GAM352 FLJ21657 3' AAAATATTTTACTCTGCCTGAT 1990 AA GTTT

ATCAG AGAG AATATTTT

TAGTC TCTC TTATAAAA

CG ATT_

GAM352 KIAA1054 3' AAAATGGTACCTCTTTC 2820 TTAA

GAAAGAGGT TATTTT

CTTTCTCCA GTAAAA

TG

GAM352 SEMA3E 5' AAAATACAGCTTCTTCCTGA 1431 A TAA

TCAG AAGAGGTT TATTTT

AGTC TTCTTCGA ATAAAA

C C

GAM352 LOC130507 3' AAAATATTAAGATAACTTTCTG 3011 AGG

CAGAAAG TTTAATATTTT

GTCTTTC GAATTATAAAA

AATA

GAM352 LOC148145 5' AAAATATTAAACCTGGACCTGA 3296 AAAG

T ATCAG AGGTTTAATATTTT

TAGTC TCCAAATTATAAAA

CAGG

GAM353 EFG1 3' TGTCTATCTCAACTCTATT 3661 ATC TC

AATAGAGTT GAT AGACA

TTATCTCAA CTA TCTGT

CT_ __

GAM353 PHYH 3' TCTGCTATAACTCTTTCA 1281 T CGATT

TGAA AGAGTTAT CAGA

ACTT TCTCAATA GTCT

TC_

GAM353 SLC6A3 3' TGTCTGTTGACCAATCTCTATT 795 TTA__ TT

CA TGAATAGAG TCGA CAGACA

```
TAACC
GAM353 H2AV 3' TGCCTGACAATTAGCTCTATTC 2447
                                            TCGAT A
         Α
                     TGAATAGAGTTA TCAG CA
                     ACTTATCTCGAT AGTC GT
                          TAAC C
GAM353 HMP19 3' GTCTGAACCGATATTTCT 3408
                                        T A
                     AGAG TATCG TTCAGAC
                     TCTT ATAGC AAGTCTG
                      T C
GAM353 KIAA1726 3' TGTCTGAAAGCAACCCTACTC 2786
                                          A A ATCGA
                     GA TAG GTT TTCAGACA
                     CT ATC CAA AAGTCTGT
                      C C CGA
GAM354 SOX11 3' GTCTCACTGTTTGATCAAACTT 992
                                           A ATTTTT
         CT
                      AGAGGTTT AT GTGAGAC
                     TCTTCAAA TA
                                 CACTCTG
                        C GTTTGT
GAM354 CAP350 3' TCTTGTAATAGTTAAACCTC 1554
                                            ATTT TG
                     GAGGTTTAAT TTG AGA
                     111111111 111 111
                     CTCCAAATTG AAT TCT
                         AT GT
GAM354 DKFZP564A022 3' TCTCACAAATATAAAACC 2174
                                            A TT
                     GGTTT ATATT TGTGAGA
                     CCAAA TATAA ACACTCT
GAM354 FLJ11730 3' CTCACAAAGATAAACATC 2005
                                       G TAA
                     GA GTT TATTTTTGTGAG
                     CT CAA ATAGAAACACTC
                      Α ___
GAM354 FLJ20686 5' CTCACAGTCCTACTGAACCTC 1765
                                            A TTT
                     GAGGTTTA TA TTGTGAG
                     CTCCAAGT AT GACACTC
                        C CCT
GAM354 FRSB
            3' GTCCCAGGGAGATATTAGACCT 1236
                                                GA
         CT
                      AGAGGTTTAATATTTTT TG GAC
                     TCTCCAGATTATAGAGG AC CTG
                            GC
GAM354 KIAA1600 3' ACAAAAAGACTAAACCTCT 2919
                                            ATA
                     AGAGGTTTA TTTTTGT
```

ACTTATCTC AGTT GTCTGT

TCTCCAAAT AAAAACA

CAG GAM354 LOC124801 3' GTCTCACATTTGGCCCAAACCT 2996 **AATATTTT** C GAGGTTT **TGTGAGAC** ШШ CTCCAAA **ACACTCTG** CCCGGTTT GAM354 LOC221035 3' TCCCAGTATTAAACCT 3593 TTTTG A AGGTTTAATAT TG GA TCCAAATTATG AC CT GAM354 LOC51611 3' CGAAAATTAAACCTCT 1653 ΑT AGAGGTTTAAT TTTTG TCTCCAAATTA AAAGC GAM355 AXUD1 3' TTTATTCCATTTCTCTCT 2309 GA AGAGAGAAA GAATAAA TCTCTCTTT CTTATTT AC GAM355 BSN 3' ATTTTTCTTTTGTTTCTCTCT 1024 G T AGAGAGAAA AGAA AAAAAT TCTCTCTTT TTTT TTTTTA G C GAM355 DPYSL2 3' AATATTTTCGTGTCTCTCTC 822 A GATA Т AGAGAGA AGA A AAAATATT TCTCTCT TCT T TTTTATAA $G G_GC$ 3' AATGTGTTTACTCTCTTTCCTT 1250 GAM355 EVA1 A A С GAG GAAAGAGA TAAA ATATT CTT CTTTCTCT ATTT TGTAA C C G 3' TTTGCTCTCTTTCTCCCT 959 GAM355 PTMS Α AG GAGAAAGAGA TAAA 11 1111111111 1111 TC CTCTTTCTCT GTTT С GAM355 SELE 3' TTTTGTGGCTTTCTTTCT 748 **AGA** AGAGAGAAG ATAAAA TCTTTCTTTC TGTTTT GG_{-} GAM355 SLC7A6 3' AATATTTTTGTACCTTTCTCCT 1076 Α AGA

AG GAGAAAG ATAAAAATATT

```
TC CTCTTTC TGTTTTTATAA
                          CA
GAM355 TGFBR2 5' TTTCTTCTAGTTCTTTCT 1003
                                           AG T
                     AGAGAGAA AGAA AAA
                     TCTTTCTT TCTT TTT
                         GA C
GAM355 DKFZP586N0721 5' TTTTATTCCCTTTCCTCT 1627
                                              A A
                     AGAG GAAAG GAATAAAA
                     TCTC CTTTC CTTATTTT
                       С
GAM355 DKFZp761J139 5' TTTATTCTCTCTGTCTCT 2242
                                             GAA
                     AGAGA AGAGAATAAA
                     TCTCT TCTCTTATTT
                       GTC
GAM355 FLJ10468 3' TTTTATTCTCCTTTC
                                 1779
                                        AAA
                     GAGAG GAGAATAAAA
                     CTTTC CTCTTATTTT
GAM355 FLJ20485 3' AATATTTTTAAAATCTCCTTTC 1874
                                            AAA A
         Т
                      AGAGAG GAGA TAAAAATATT
                     111111 1111 1111111111
                     TCTTTC CTCT ATTTTTATAA
                          AAA
GAM355 H2BFQ
            3' ATATTTACTCTTTCTGTC 2523
                                            AATAA
                                        G
                     GA AGAAAGAG AAATAT
                     CT TCTTTCTC
                                TTTATA
                      G
                           Α
GAM355 KIAA0077 3' TTTTATTCTCTCTCCCTTT 2774
                                          A
                     AGAG GA AGAGAATAAAA
                     TTTC CT TCTCTTATTTT
                       C
GAM355 KIAA0295 3' TTTTTTCCCTTTCTCTCT 2807
                                           A T
                     AGAGAGAAAG GAA AAA
                     TCTCTCTTTC CTT TTT
                         C T
GAM355 KIAA0828 3' AATATTTTGCCTTCTTTC 3195
                                               AATA
         Т
                      AGAGAGAAGAG AAAATATT
```

TCTTTCTTTCTT TTTTATAA

AGA GAGAATAAAAATATT

GAGAAA

 CCG_{-}

GAM355 KIAA1203 3' AATATTTTTATTCTTGAGTTAT 2921

Ш

CT

```
TCT
                          TTCTTATTTTTATAA
                       ATTGAG
GAM355 OSBPL8 3' TTTTTATTATCCTCCTCTCT 1928
                                           AAA G
                     AGAGAG GA AATAAAAA
                     TCTCTC CT TTATTTTT
                        CTC A
GAM355 PAK6
            3' AATATTTTAGATTCTTCTGCT 1897 _ A AA
         C
                      GAG AGAA GAG TAAAAATATT
                     CTC TCTT CTT ATTTTTATAA
                      G AG
GAM355 POLR3F 3' AATATTTTCACTGTTCCTTCTT 2547
                                             ΑА
         TCT
                       AGAGAGAA G GAATA AAAATATT
                     TCTTTCTT C CTTGT TTTTATAA
                            CAC
GAM355 RNF11 3' TTTATTCTCTTCT
                                 1495
                                       G
                     AGA AGAAAGAGAATAAA
                     TCT TCTTTCTCTTATTT
GAM355 SLC16A6 5' TTTATTCTCTTCCCTTCT 1143
                                         AGA
                     AGAG AAGAGAATAAA
                     TCTT TTCTCTTATTT
                       CCC
GAM355 LOC144321 3' TTTTATTCCCTTCTCTC 3267
                                           AA
                     GAGAGAA G GAATAAAA
                     CTCTCTT C CTTATTTT
                        _ C
GAM355 LOC150951 5' ATATTTTTATTTTCTTCCT 3336
                     AG AAGAGAATAAAAATAT
                     TC TTCTTTTATTTTTATA
                      C
GAM355 LOC199920 5' AATATTTTTATTCTTTGATTCT 3435
                                            AA
         Т
                      GAGAG AGAGAATAAAAATATT
                     TTCTT TTTCTTATTTTTATAA
                       AG
GAM355 LOC256435 3' AATATTTTTAAATGTTGTCTCT 3675
                                             AAGAGAA
         CT
                      AGAGAGA
                                TAAAAATATT
                     TCTCTCT
                               ATTTTTATAA
                        GTTGTAA
GAM356 ADAMTS5 3' TATTTTCACAACTACTTTCTCT 1352
                                               _ AATA_
```

AGAGAGAAG AG AAAATA

CT

```
TCTCTCTTC TC TTTTAT
                        A AACAC
GAM356 ADAT1 3' TATTCCCAGCCTTTCTTCTTC 1404
                                            Α
                    GAAGAGAAAG GAATA
                    CTTCTTTCTTTC CTTAT
                         CGACC
GAM356 ADCY2 3' TTTTATTTTCCTGTCTTC 2711
                                       G AAA
                    GAAGA AG GAGAATAAAA
                    CTTCT TC CTTTTATTTT
                      G
GAM356 AHR
            3' ATTTTTGTTACTCTCTTC 840
                                       _ A
                    GAAGAGAG AA GAGAAT
                    CTTCTCTC TT TTTTTA
                       AG
GAM356 BSN
            3' ATTTTTCTTTTGTTTCTCTCT 1025
                                         G T
                    AGAGAGAAA AGAA AAAAAT
                    TCTCTCTTT TTTT TTTTTA
                        G C
GAM356 BSN
            3' TCTCCCCCTTTCTCTCTC 1026
                    GAAGAGAAA GAGA
                    CTTCTCTCTTT CTCT
                         CCCC
GAM356 C7
           3' TATTCCTTATTTCTCTTT 756
                    GAAGAGAAAA AAG GAATA
                    TTTCTCTTT TTC CTTAT
                        Α
GAM356 CFTR
            3' TATTCCTTTTTCTCTCCTC 753
                    GA GAGAGAAAGAG AATA
                    CT CTCTCTTTTTC TTAT
                     С
                          C
GAM356 CHD2
            3' ATATTTTTCTGATCCCCCACT 813
                                        AA____ GAAT_
                                                     Ш
        CTCTCTTC
                         AGA GA AAAAATA T
                        TCT CT TTTTTAT A
                     CACCCC AGTCT
GAM356 CKN1
            3' TATTTTATTCTTTC
                              703
                                        AG
                    GAAGAGAAA AGAATA
                    CTTCTTTCTT TTTTAT
GAM356 CTH
            5' TGTTCTTTTCCTCTCTC 867
                    GAAGAGAG AAGAGAATA
```

```
CTTCTCTC TTTTCTTGT
                        C
GAM356 EVA1 3' ATTTTTATTTTTATGTCTCTC 1251
                                         AA
                    GAGAGA GAGAATAAAAAT
                    CTCTCT TTTTTATTTTTA
                       GTA
GAM356 FBXL11 3' TTGTTCCCCCTCTCTTT 1426
                                          AAGA
                    GAAGAGAGA GAATAA
                    TTTCTCTCT CTTGTT
                        CCCC
GAM356 GATA3
            3' TATTTTCCTTCTCTCTC 893
                                         Α
                    GA GAGAGAA GAGAATA
                    CT CTCTCTT CTTTTAT
                         C
GAM356 GDI2
            5' TTTTCCTCTCTTTCTCTT 832
                                         AT
                    GAGAGAAAGAGA AAAA
                    TTCTCTTTCTCT TTTT
                         CC
GAM356 HD
           3' ATTCTCCCTTCTCTTT 899
                    GAAGAGAAA GAGAAT
                     TTTCTCTCTT CTCTTA
                        CC
GAM356 HTR2C 3' TATTTTTGCTCTCCCTCCCTTC 781
                                         A AAA A
                    GAAG GAG GAGA TAAAAATA
                    CTTC CTC CTCT GTTTTTAT
                      C C_ C
GAM356 LGR6
            3' TTCTCTTCCCCTCTCTTC 3302
                                         Α
                    GAAGAGAG AAGAGAA
                    CTTCTCTC TTCTCTT
                        CCC
GAM356 LRP8
            3' TCTCTTATTTCTCTTTTC 2326
                    GAAGAGAGAA AGAGA
                     CTTTTCTCTT TCTCT
```

TAT

TAT

GAAGAGAA AGAGA

CTTTTCTCTT TCTCT

GA AGAGAGA AGAGAA AAAAA

Α

Т

3' TCTCTTATTTCTCTTTTC 1139

GAM356 MEF2C 5' TTTTTTTTCTCTCTCTCTCTCT 926

GAM356 LRP8

С

```
CT TCTCTCT TCTCTT TTTTT
                          СТ
                       C
GAM356 MSR1
             3' TATTTTTGGTTTCTCTCT 929
                      AGAGAGAAA GAGAATA
                      TCTCTCTTT TTTTTAT
                         GG
GAM356 PCDH11X 3' TATTTTCACATTTTCTCTCT 2299
                      AGAGAGAAA GAGAATA
                      TCTCTCTTT CTTTTAT
                         TACA
GAM356 PCDH11X 3' TATTTTCACATTTTCTCTCT 2301
                      AGAGAGAAA GAGAATA
                      TCTCTCTTT CTTTTAT
                         TACA
GAM356 PCDH11Y 3' TATTTTCACATTTTCTCTCT 2303
                      AGAGAGAAA GAGAATA
                      TCTCTCTTT CTTTTAT
                         TACA
GAM356 PCMT1
             3' TATCTTCTGCTCTTTCTTC 1205
                                            A GA
                      GAAGAGAA AGA ATA
                      111111111 111 111
                      CTTCTTTCT TCT TAT
                         CG TC
GAM356 PCNA
             3' TATTTTTTTTCTCTATTC 939
                                        G
                      GAA AGAGAAAGAGAATA
                      CTT TCTCTTTTTTTAT
GAM356 PRELP
             3' ATTCGTTTTCTCTCTC 950
                                             Α
                      GA AGAGAGAAAG GAAT
                      CT TCTCTCTTTT CTTA
                       С
                            G
GAM356 PTMS
             3' TTTGCTCTCTTTCTCCCT 958
                                             Α
                      AG GAGAAAGAGA TAAA
                      11 1111111111 1111
                      TC CTCTTTCTCT GTTT
                            С
GAM356 SLC4A4 3' TATTTTTATTCTCTTAAGTCTT 1054
                                            GAGA
         Т
                      GAAGA AAGAGAATAAAAATA
                      TTTCT TTCTCTTATTTTAT
                        GAA_{-}
GAM356 TRPS1
             5' TATTTCCTTTCTCTCTTT 1471
                                                TAA
                      AGAGAGAAGAGAA AAATA
```

```
TCTCTCTTTCTCTT TTTAT
```

TCC GAM356 ARS2 5' TTTTGTTCGCCTCTCTC 1650 **AAAGA** GAAGAGAG GAATAAAA CTTCTCTC CTTGTTTT CG GAM356 BRD4 3' TATTTTTAATTCTCTCTTC 2368 A_{-} GAAGAGAAA GAGAATA CTTCTCTCTT TTTTTAT AA GAM356 CAPN13 3' TATTTTACCTGCCTCTCTC 2485 AA ___ GAAGAGAG AG AGAATA CTTCTCTC TC TTTTAT CG CA GAM356 CECR6 3' TTACCCTCTCTCTTC 2218 AA AA GAAGAGAG AGAG TAA CTTCTCTC TCTC ATT C_ CC GAM356 DKFZP434I0714 5' TTTTTGTTTTTCCCCCTCTTC 3362 **AGAAA** GAAGAG GAGAATAAAAA CTTCTC TTTTTGTTTTT CCCC GAM356 DKFZP564G092 5' TATTCCTCTTTCTTTC 1639 A A GAAGAGAGA AG GAATA CTTTTCTTT TC CTTAT C _ GAM356 DKFZp564K142 3' TATCCTCTTAACCTTCTCTC 2231 GAAGAGAG AAGAG ATA CTTCTCTT TTCTC TAT CCAA C GAM356 DKFZp566D234 3' TATTTTTTTTCTCTGTC 2612 AG GA AGAGAAAGAGAATA CT TCTCTTTTTTTAT G_{-} GAM356 DKFZP566I1024 3' TTTTAAAATCTATTCTCTC 2878 _ GAA GAGAGAA AGA TAAAA CTCTCTT TCT ATTTT A AAA GAM356 EPI64 3' TATTTTGACATCTCTCTCTT 3681 A GAATA С GAAGAGA AGA AAAATA

```
CTTCTCTCT TCT TTTTAT
                        C ACAG
GAM356 FLJ00012 3' TATTTTTATCTCTATCTCCT 2985 A A A
                     AG GAGA AGAGA TAAAAATA
                     TC CTCT TCTCT ATTTTTAT
                     _ A _
GAM356 FLJ10460 3' ATTTTTATTCTACCTTTC 1778
                                        AAAG
                     GAGAG AGAATAAAAAT
                     CTTTC TCTTATTTTTA
                       CA
GAM356 FLJ10687 3' TTTATTCATTTCTCTCCTC 1793
                                            GA
                     GA GAGAGAAA GAATAAA
                     CT CTCTCTTT CTTATTT
                     С
                          Α
GAM356 FLJ10738 3' TATTTTTACTCTCCCTCTTC 1799
                                          AGAAA A
                     GAAGAG GAGA TAAAAATA
                     CTTCTC CTCT ATTTTTAT
                       C____ C
GAM356 FLJ13158 3' TTCTCTCCCTTTCTCTC 2109
                     GAAGAGAA AGAGAA
                     CTTCTCTTT TCTCTT
                        CCC
GAM356 FLJ20294 5' TATTCCTGTCTCTCTTT 1747
                                         _ A A
                     GAAGAG AGA AG GAATA
                     TTTCTC TCT TC CTTAT
                       CG
GAM356 FLJ21657 3' TATTCTACTTCTCTCTC 1991
                                          AG
                     GAAGAGAA AGAATA
                     CTTCTCTCTT TCTTAT
                         CA
GAM356 GT650
            3' TATTTCTGATTCTCCCTCTCTT 2341
                                           AAA
                                                AA
         C
                     GAAGAGAG GAGAAT AAATA
                     CTTCTCTC CTCTTA TTTAT
                        C__ GTC
GAM356 HEY2
            3' TATTCTCTTTTTTTCTC 1420 AG
                     GA AGAGAAAGAGAATA
                     CT TTTTTTTCTCTTAT
                     CT
GAM356 HIC2
            3' ATTTTTTTTTCTCTCTCTTTTC 2717
                     GAAGAGAA AGAGAA AAAAAT
```

```
CTTTTCTCT TCTTTT TTTTTA
                         С
GAM356 HOOK3 3' ATTTTGAGGACTTTTTCTCTCT 2249
                                              AATA
                     AGAGAGAAGAG AAAAT
                     TCTCTCTTTTTC TTTTA
                          AGGAG
GAM356 IL1RAPL1 5' TATTCTTATTTTCCCCTCTCTT 1488
                                            AAA
                                                   Α
         Т
                     GAAGAGA GAGAATAA AATA
                     TTTCTCTC CTTTTATT TTAT
                        CC
                              С
GAM356 KALI
            3' TTTTGTTCTTGTCCCTCTC 2347
                                        AAA
                     GAGAG GAGAATAAAA
                     CTCTC TTCTTGTTTT
                       CCTG
GAM356 KIAA0077 3' TTTTATTCTCTCTCCCTTT 2773 A AA
                     GAAG GAGA GAGAATAAAA
                     TTTC CTCT CTCTTATTTT
                       C __
GAM356 KIAA0089 3' ATTTTTAGCCTCTTTTCTCTC 2873
                                             A AA
                     GAAGAGAAAA GAG TAAAAAT
                     CTTCTCTTTT CTC ATTTTTA
                         _ CG
GAM356 KIAA0286 3' TATTTTCACCCTCTTTTC 2814
                                          AAA
                     GAAGAGAG GAGAATA
                     CTTTTCTC CTTTTAT
                        CCA
GAM356 KIAA0295 3' TTTTTTCCCTTTCTCTCT 2808
                                           A T
                     AGAGAGAAAG GAA AAA
                     TCTCTCTTTC CTT TTT
                         CT
GAM356 KIAA0342 3' TATTCTCATTACTTCTCTTT 2890
                                           __ A
                     GAAGAGA G AA GAGAATA
                     TTTCTCT C TT CTCTTAT
                        TAA
GAM356 KIAA0564 3' TATTTTTATTTTCTCCCTGCTC 2743
                                           _ AA
                     GAG AG AGAGAATAAAAATA
```

GAM356 KIAA0630 3' TATTTTTTAAAAGTCTTTCTCT 3465 GAAT_
CT AGAGAGAAAGA AAAAATA
||||||||||||||

G CC

CTC TC TCTTTTATTTTAT

```
TCTCTCTTTCT
                                   TTTTTAT
                          GAAAAT
GAM356 KIAA0662 3' TGTTCTCTCTCTCTTTT 3215
                                            Α
                      GAAGAGAGA AGAGAATA
                      TTTCTCTCT TCTCTTGT
                         C
GAM356 KIAA0830 3' TTTGCTTCTCTTTCTCCT 2866
                      AG GAGAAAGAGAA TAAA
                      11 111111111111111111
                      TC CTCTTTCTCTT GTTT
                            C
GAM356 KIAA0964 3' ATTCTTATGTTTTTCTCTTTTC 1579
                                                GA A
                      GAAGAGAAAGA ATAA AAT
                      CTTTTCTCTTTTT TATT TTA
                           G C
GAM356 KIAA1076 3' TATTTTTTGCTTTCTCTC 2723
                                            AGAAT
                      GAGAGAAAG AAAAATA
                      CTCTCTTTC
                                TTTTTAT
                         GT
GAM356 KIAA1181 3' ATTCCTCTCTCTCTC 2817
                      GAAGAGAG AAGAG AAT
                      CTTCTCTC TTCTC TTA
                         С
                           С
GAM356 KIAA1319 3' TATTTTTGTCTTCCTTTC 1925
                                            A GA
                      GAGAG AAGA ATAAAAATA
                      CTTTC TTCT TGTTTTTAT
                        C TC
GAM356 KIAA1522 3' ATTCTCTGACCTTTCTCTCT 2708
                      AGAGAGAA AGAGAAT
                      TCTCTCTT
                               TCTCTTA
                         TCCAG
GAM356 KIAA1906 3' ATTTTTATTCTCTGCTT 2971
                                         AA
                      GAG AGAGAATAAAAAT
                      TTC TCTCTTATTTTTA
                       G_{-}
GAM356 MAPK6
             5' TATTTTTCTTCTCCCTTT 952
                                         Α
                                            AG
                      GAAG GAGAA AGAATA
                      TTTC CTCTT TTTTAT
                       C CT
GAM356 MGC13138 3' TATTTTTATTCTTGTGACCCTC 2332
                                             AGAAA
                      GAG GAGAATAAAAATA
```

Ш

```
CTC
                           TTCTTATTTTTAT
                       CCAGTG
GAM356 MGC2742 5' TATTTCTTTTCTCTCTC
                                             AG
                                    2040
                      GAAGAGAGAAAG AATA
                      CTTCTCTCTTTT TTAT
                          CT
GAM356 MGC32043 3' TATTCCTGTTTTCTCTTT 2486
                                             _ A
                      GAAGAGAAA AG GAATA
                      TTTCTCTTTT TC CTTAT
                          G
GAM356 NFAT5
             3' TATTCCCTTTTTCTCTTC 2452
                                            Α
                      GAAGAGAAAG GAATA
                      CTTCTCTTTTTC CTTAT
                           С
GAM356 OSBPL8 3' TTTTTATTATCCTCCTCTCTC 1929
                                             AAA G
                      GAAGAGAG GA AATAAAAA
                      CTTCTCTC CT TTATTTTT
                         CTC A
GAM356 RAB10 3' TGTTCTGCTTTTCCTCCTC 3337
                                         A AG
                      GA GAG AAAG AGAATA
                      CT CTC TTTC TCTTGT
                      C CT G
GAM356 RANBP1 3' TATTTTCTTTTCCTCTCTTT 969
                      GAAGAGAG AAAGAGAATA
                      TTTCTCTC TTTCTTTTAT
                         CT
GAM356 RASSF2 3' TATTTTCACAATCCTCTCTC 1537
                                             AAA
                      GAAGAGAG
                                GAGAATA
                      ШШ
                      CTTCTCTC
                                CTTTTAT
                         CTAACA
GAM356 STK22D 3' TATTTTCATCAGCTTCTTCTCT 2226
                                              AG AATA__
         CT
                       AGAGAGAA AG
                                    AAAATA
                      11111111 11
                           111111
                      TCTCTCTT TC
                                  TTTTAT
                         CT GACTAC
GAM356 SYNJ2
             3' ATTTTTAGGTTTTCTCTTC 2606
                                            AGAGAA
                      GAAGAGAGAA
                                  TAAAAAT
                      CTTCTCTTTT
                                 ATTTTTA
                          GG_{-}
GAM356 TBLR1
             3' TATTCTTTTTTCCCTTC
                                  2079
                                         Α
                      GAAG GAGAAAGAGAATA
```

C

GAM356 TM9SF1 3' TATTGCTGTTCTCTCCCTTTCT 1296 AA AA TC GAAGAGA AGAGAATA AATA CTTCTTTC TCTCTTGT TTAT CC CG 3' TATTCTATCCTCTCTCTCT 1523 GAM356 ULK2 _ AAG_ GAAGAG AGA AGAATA CTTCTC TCT TCTTAT C CCTA GAM356 UNC5D 3' TTATTCTTTCTTCCTCTTC 2393 Α _ GAAGAG GAA AGAGAATAA CTTCTC CTT TTTCTTATT С GAM356 LOC121219 5' TTATTAACTCCTTCTCTTT 2988 GAAGAGAAA GAG AATAA TTTCTCTCTT CTC TTATT C AA GAM356 LOC128077 3' ATTTGTTTTCTCTTTCCT 3006 TAA С GA GAGAGAAAGAGAA AAAT 11 1111111111111 1111 CT CTTTCTTTCTCTT TTTA С TTG GAM356 LOC143451 3' TTCTCTCCTTCTCTCTC 3058 GAAGAGAA AGAGAA CTTCTCTCTT TCTCTT CC GAM356 LOC145125 3' TTCTCTCCTTCTCTCTC 3075 GAAGAGAA AGAGAA CTTCTCTCTT TCTCTT CC GAM356 LOC149351 3' ATTTTTCAGATCTTTCTCTTT 3131 **GAAT** AGAGAGAAAGA AAAAAT TTTCTCTTTCT TTTTTA **AGAC** GAM356 LOC1497225' TATTCTTTCTTTCTCTTC 3312 Α GAAGAGAGA AGAGAATA CTTCTCTTT TTTCTTAT C GAM356 LOC149837 5' TATTCCTGTCTTTCTCTCT 3318 AGAGAGAAGA GAATA

```
TCTCTCTTTCT CTTAT
                          GTC
GAM356 LOC150054 3' TATTCTGTCTTTCTCCTC 3323
                      GAG AGAAAGA GAATA
                      CTC TCTTTCT CTTAT
                       C
                           GT
GAM356 LOC150150 5' TTTTGTGCCTCTCTTTCTTC 3324
                                              AA A_
                     GAAGAGAGA GAG ATAAAA
                      CTTCTTTCT CTC TGTTTT
                         CG
GAM356 LOC150225 3' TATTTTGTTTCCCTCTTC 3327
                                            A G
                      GAAGAG GAAA AGAATA
                      CTTCTC CTTT TTTTAT
                        C G
GAM356 LOC152816 3' TATTTTTATCCTCAACCTCTT 3364
                                             AAA A
                     GAGAG GAG ATAAAAATA
                     TTCTC CTC TATTTTTAT
                        CAA C
GAM356 LOC155038 3' ATTGCGTTTCTCTTTCTCCTTC 3198
                                                   TAAA
                                             Α
                      GAAG GAGAAAGAGAA AAT
                      CTTC CTCTTTCTCTT TTA
                            TGCG
GAM356 LOC158629 3' TATTTTCTTTCCCTCTC 3394
                                         A A
                     GA GAG GAAAGAGAATA
                      CT CTC CTTTCTTTTAT
                      С
GAM356 LOC158943 3' TATTTTCTTTTCCTCTCTTT 2572
                     GAAGAGAG AAAGAGAATA
                      TTTCTCTC TTTCTTTTAT
                         CT
GAM356 LOC170082 3' ATTCTTTTCCCCTCTCTTTTC 3254
                      GAAGAGAGA AAGAGAAT
                      CTTTTCTCT TTTTCTTA
                         CCCC
GAM356 LOC199920 5' TATTTTTATTCTTTGATTCTTC 3436
                                             AGAA
                      GAAGAG AGAGAATAAAAATA
                      CTTCTT TTTCTTATTTTAT
                        \mathsf{AG}_{\_}
GAM356 LOC219667 3' ATTTTTGTTATCTCTCTC 3516
                                             AAGAG
                     GAAGAGAA AATAAAAAT
```

```
CTTCTCTCT TTGTTTTTA
                         Α
GAM356 LOC220279 5' TATTTTCTTCCCCTACCTCTCT 3653
         TC
                       GAAGAGAG
                                  AAGAGAATA
                      CTTCTCTC
                                TTCTTTTAT
                         CATCCCC
GAM356 LOC221830 3' TATTTTCTTTCTTC 3567
                      GAAGAGAAA GAGAATA
                      CTTCTTTCTTT CTTTTAT
                          Т
GAM356 LOC222166 3' ATTTTACCTTCTCTTT 3635
                                             AG
                      GAAGAGAAA AGAAT
                      TTTCTCTCTT TTTTA
                          CCA
GAM356 LOC254440 3' TTCTCTCTTCTCTCTTC 3729
                      GAAGAGAA AGAGAA
                      CTTCTCTCTT TCTCTT
                          CC
GAM356 LOC51123 3' ATTTTTATGCTGTTCCCTCTT 2571
                                             A AG A
                      AAGAG GAA AG ATAAAAAT
                      TTCTC CTT TC TATTTTTA
                        CGG
GAM356 LOC51596 5' TATTTTCCAAGTTTCTCTCT 1651
                                           Α
                      GA GAGAGAAA GAGAATA
                      CT CTCTCTTT CTTTTAT
                          GAAC
GAM356 LOC84570 5' TTTCGTTTTCCTCTCTCTC 2257
                                              AA
                                                  TΑ
                      GAAGAGAGA GAGAA AAA
                      CTTCTCTCT CTTTT TTT
                         C_ GC
GAM356 LOC92710 5' TATTTTTATGCCTCTGTCTC 2885
                      GAGA AGAG ATAAAAATA
                      1111 1111 11111111
                      CTCT TCTC TATTTTTAT
                       G CG
GAM357 FANCF 3' GTCCCTTTAAAGCATTGA 1997
                                              ATATAT
                      TCAATGTTTTAAA
                                     GGAC
                      Ш
                      AGTTACGAAATTT
                                     CCTG
                           \mathsf{C}_{-}
GAM357 GPR65
             5' TCCACCCTTTAAAAGCATTGA 2544
                                              A TATA
                      TCAATGTTTT AAA TGGA
```

```
AGTTACGAAA TTT ACCT
                        A CCC_
GAM357 LMNB1 3' TGTCCATACACTTTGTTGCA 1226
                                        TT ATA
                    TGT TAAA TATGGACA
                     ACG GTTT ATACCTGT
                      TT CAC
GAM357 MEN1
            5' CATAATATTTTAAAACATT 3600
                    AATGTTTTAAAATAT ATG
                     TTACAAAATTTTATA TAC
GAM357 PLAG1 3' TGTCCATATACCAGATTTAAAA 944
        TATT
                      AATGTTTTAAA TATATGGACA
                     TTATAAAATTT ATATACCTGT
                         AGACC
GAM357 S100A11 3' TGTCACTTTTTTAAAACATGA 1231 A
                                              TATATG
                    TCA TGTTTTAAAA GACA
                     AGT ACAAAATTTT
                                   CTGT
                          TTCA__
GAM357 SLC9A6 3' TCCAGTTAGAACATTGA 1290
                                           AATATA
                    TCAATGTTTTAA TGGA
                     AGTTACAAGATT
                                  ACCT
                         G
                                        T TA _
GAM357 SOD2
            3' TCCATATACTTTGGGGACTTG 766
                    CAA GTTT AAA TATATGGA
                     GTT CAGG TTT ATATACCT
                      _ GG C
GAM357 BIRC2 5' TATATTTTTAAAACATTGA 2784
                                           Т
                    TCAATGTTTTAAAA ATATG
                     AGTTACAAAATTTT TATAT
GAM357 CXorf1 5' TGTCCATAGAAAAAATATT 1145
                                         AAAATA
                    AATGTTTT
                              TATGGACA
                     TTATAAAA ATACCTGT
                        AAG
GAM357 KIAA0367 3' TGTCCCACAATGCCTAAAACAT 2787
                                             AAATATAT_
        TGA
                      TCAATGTTTTA
                                    GGACA
                     AGTTACAAAAT
                                  CCTGT
                         CCGTAACAC
GAM357 KIAA1321 3' TCCTTGAGCTTTAAAGCATTGA 2627
                                              ATATAT
```

TCAATGTTTTAAA GGA

Ш

AGTTACGAAATTT CCT

CGAGTT

GAM357 KIAA1718 3' TGTATTTTAAAATATTGA 2686

TCAATGTTTTAAAATATA

AGTTATAAAATTTTATGT

GAM357 KIAA1789 5' TGTCCCTGCCCTAGAAACATTG 2781 AAAATATAT

A TCAATGTTTT GGACA

AGTTACAAAG CCTGT

ATCCCGTC

GAM357 PRO2964 3' CAAGTATTTTAAAACACTG 1842 A A

CA TGTTTTAAAATAT TG

GT ACAAAATTTTATG AC

C

GAM357 SLC17A6 3' TGTCCATACACAGAAACAT 1912 AAAATA

ATGTTTT TATGGACA

TACAAAG ATACCTGT

ACAC

GAM357 TRAF3 5' CATTTTATTTTAAAACGTTGA 2542 T_

TCAATGTTTTAAAATA ATG

AGTTGCAAAATTTTAT TAC

TT

GAM357 LOC151361 3' TGTCTGTGTTTTTAAAAC 3344

GTTTTAAAA ATATGGACA

CAAAATTTT TGTGTCTGT

GAM357 LOC158714 3' TCCACACATTTAAAACATTGA 3224 ATATA

TCAATGTTTTAAA TGGA

AGTTACAAAATTT ACCT

ACAC_

GAM357 LOC219667 3' TATACCTTAGAACATTGA 3518 AA

TCAATGTTTTAA TATA

AGTTACAAGATT ATAT

CC

GAM357 LOC91565 3' TCCATTTTAAAACATT 2749 ATAT

AATGTTTTAAA ATGGA

TTACAAAATTT TACCT

GAM358 EHF 3' ATATTGTAGAAGGAAACACCAA 1411 T GGA

TTGGT GT TCTTCTACAATAT

AACCA CA GGAAGATGTTATA

_ AA_

GAM358 C9orf5 3' ATATTGCAAAAAACTACAGCTA 2225 **ATCTTCTA** Α TTGGTTGTGG CAATAT 1111111111 **AATCGACATC GTTATA** AAAAAAC GAM358 KIAA1546 3' TTGAAAAGACCACAACCAA 2805 A CTA TTGGTTGTGG TCTT CAA AACCAACACC AGAA GTT _ AA GAM358 LOC253263 3' TGAGAAAAACCCACAACTAA 3724 ATC_ A TTGGTTGTGG TTCT CA AATCAACACC AAGA GT CAAA GAM359 BRCA1 3' GCCATGAGCACAAAATTATGGT 1380 **AGGGTA** TATCATAA TGCTCATGGC Α ATGGTATT ACGAGTACCG AAAAC GAM359 BRCA1 3' GCCATGAGCACAAAATTATGGT 1381 **AGGGTA** TATCATAA TGCTCATGGC ATGGTATT ACGAGTACCG AAAAC 3' GCCATGAGCACAAAATTATGGT 1382 GAM359 BRCA1 **AGGGTA** TATCATAA TGCTCATGGC Α **ATGGTATT ACGAGTACCG** AAAAC_ GAM359 BRCA1 3' GCCATGAGCACAAAATTATGGT 1383 **AGGGTA** Α TATCATAA TGCTCATGGC ATGGTATT ACGAGTACCG AAAAC 3' GCCATGAGCACAAAATTATGGT 1384 GAM359 BRCA1 **AGGGTA** Α TATCATAA TGCTCATGGC ATGGTATT ACGAGTACCG AAAAC GAM359 BRCA1 3' GCCATGAGCACAAAATTATGGT 1385 **AGGGTA** Α TATCATAA TGCTCATGGC ATGGTATT ACGAGTACCG $AAAAC_{-}$ GAM359 BRCA1 3' GCCATGAGCACAAAATTATGGT 1386 **AGGGTA** TATCATAA TGCTCATGGC Α

```
ATGGTATT
                              ACGAGTACCG
                        AAAAC
GAM359 BRCA1 3' GCCATGAGCACAAAATTATGGT 1387
                                            AGGGTA
        Α
                     TATCATAA
                              TGCTCATGGC
                         ATGGTATT
                              ACGAGTACCG
                        AAAAC
GAM359 BRCA1
             3' GCCATGAGCACAAAATTATGGT 1388
                                            AGGGTA
                     TATCATAA
        Α
                             TGCTCATGGC
                    ATGGTATT
                            ACGAGTACCG
                        AAAAC
GAM359 BRCA1
             3' GCCATGAGCACAAAATTATGGT 1389
                                            AGGGTA
        Α
                     TATCATAA
                              TGCTCATGGC
                    ATGGTATT
                              ACGAGTACCG
                        AAAAC
GAM359 BRCA1
            3' GCCATGAGCACAAAATTATGGT 1391
                                            AGGGTA
                     TATCATAA TGCTCATGGC
        Α
                    ATGGTATT ACGAGTACCG
                        AAAAC
GAM359 PPP1CB 3' GCCATTTGACACCCTTTATGAT 949
                                             ATGCTC
        G
                     TATCATAAAGGGT ATGGC
                    GTAGTATTTCCCA
                                   TACCG
                         CAGTT
GAM359 TRPS1 3' CATGCACACCCTCTCTGATA 1470
                                         TAA A TC
                    TATCA AGGGT TGC ATG
                    ATAGT TCCCA ACG TAC
                      CTC C
GAM359 FLJ23323 3' GCCATGAATGGTGCCCTT 2077
                                          GC
                    AAGGGTAT TCATGGC
                    TTCCCGTG AGTACCG
                        GTA
GAM359 KIAA0057 3' CCACAAGCATACCTATTAAGA 1421
                                         А А
                                                CA
                    TC TAA GGGTATGCT TGG
                    AG ATT TCCATACGA ACC
                     A A
                            AC
GAM359 LOC145439 5' GCCATGAGCTGCATCTTTAT 3079
                                           _ T
                    ATAAAGG GTA GCTCATGGC
                    TATTTCT CGT CGAGTACCG
GAM360 DKFZP434G1411 3' TAGGTTGATACATGTATCA 3554
                                                 AA
                    TGATACATGTATTAA TA
```

ACTATGTACATAGTT AT

GG

GAM360 DKFZP564I052 3' GAAAGTATTCCTATCATGTAT 2760 T TAA ATACATG AT AATACTTTC TATGTAC TA TTATGAAAG _ TCC GAM360 KLHL8 3' AAAGTATTTGTTACATAATCA 2639 AC TTA TGAT ATGTA AAATACTTT ACTA TACAT TTTATGAAA A TG GAM360 XLKD1 3' AAAGTGCCATTAACAAATGTAT 1323 GTA AA CA TGATACAT TTAA TACTTT ACTATGTA AATT GTGAAA AAC ACC GAM360 LOC51003 3' GAGGCACTTAATACATGTAT 1658 AATA ATACATGTATTAA CTT TATGTACATAATT GAG CACG GAM361 GCNT2 5' TCTCGGGATGAAACGGAATCGA 831 __ A TCGATTCCGT CC AGA AGCTAAGGCA GG TCT AAGTAG C GAM361 BLP1 3' TTACCTTGCAGACGGAATGA 2222 G Α TC ATTCCGTC CAAG TGA AG TAAGGCAG GTTC ATT AC C GAM361 BLP1 3' TTACCTTGCAGACGGAATGA 2371 Α TC ATTCCGTC CAAG TGA AG TAAGGCAG GTTC ATT AC C GAM361 LOC143914 5' TCACTCAAACGGAATCGA 3062 CCA A TCGATTCCGT AG TGA AGCTAAGGCA TC ACT AAC _ GAM361 LOC253891 5' CACTGGGACGGAATCGG 3654 A A TCGATTCCGTCC AG TG GGCTAAGGCAGG TC AC G_{-} GAM362 ADSS 3' GAAACAAATGATGAAAACAT 2925 CCTGTT ATGT TCATTTGTTTC

```
TACA AGTAAACAAAG
                      AAAGT_
GAM362 CASP6 3' GAAACAAAATCCTCAGGAAATT 2305
                                        G TTTCA
        Α
                     TAAT TCCTG TTTGTTTC
                    ATTA AGGAC
                              AAACAAAG
                      A TCCTA
GAM362 CASP6 3' GAAACAAAATCCTCAGGAAATT 810
                                         G TTTCA
                     TAAT TCCTG TTTGTTTC
        Α
                    ATTA AGGAC AAACAAAG
                      A TCCTA
GAM362 CKTSF1B1 3' AAGTGGATAAACAGAACATT 1445
                                          C C TG
                    AATGT CTGTTT ATT TTT
                    TTACA GACAAA TAG GAA
                      A GT
GAM362 F2R 3' AAACAATGCAGTACAGGACAT 879
                                          TTCAT
                    ATGTCCTGT TTGTTT
                    TACAGGACA
                               AACAAA
                        TGACGT
GAM362 GPRK7 3' GGAAACAAATGTTTCTGACATT 2476
                                          CTGTTT
                    AATGTC CATTTGTTTCC
                    TTACAG GTAAACAAAGG
                       TCTTT
GAM362 NLGN1 3' AAACAAATGAGATGGAC 1591
                                       Т
                    GTCC GTTTCATTTGTTT
                    CAGG TAGAGTAAACAAA
                                           T TTT
GAM362 APC10 5' GGAAACTGTAACAGGACATT 1574
                    AATGTCCTGTT CA GTTTCC
                    TTACAGGACAA GT CAAAGG
                        T __
GAM362 C20orf139 3' GGAACAAAAACAGGACATTA 3319
                                             CAT
                    TAATGTCCTGTTT TTGTTTC
                    ATTACAGGACAAA AACAAGG
GAM362 FLJ11186 3' GAAGCCCGAAACAAGACATTA 1818
                                           C ATTT
                    TAATGTC TGTTTC GTTTC
                    ATTACAG ACAAAG CGAAG
                       A CC_
                                            CA __
GAM362 FLJ22116 5' GGAATTGCGGAAAACAGGAC 2073
                    GTCCTGTTT TTTGT TTCC
```

```
TT
GAM362 FLJ32978 3' AAACAAATGAAATCAACA 2487
                                        CCT
                    TGT GTTTCATTTGTTT
                    ACA TAAAGTAAACAAA
                     AC
GAM362 KIAA1164 3' GGAAACAAAACAAAACAAAAC 2862
                                         CC CA
                    GT TGTTT TTTGTTTCC
                    CA ACAAA AAACAAAGG
                     AA ACA
GAM362 KIAA1762 3' AAAGAGAGAAACGGACA 2668
                                      TAG
                    TGTCC GTTTC TTT TTT
                    ACAGG CAAAG AGA AAA
                      G
GAM362 KIAA1918 5' GAAAGGAGACAGAACATTA 2969
                                       C ATTTG
                    TAATGT CTGTTTC TTTC
                    ATTACA GACAGAG AAAG
                       Α
                         G____
GAM362 POPX1 3' GGAAACAACTTCAGGTCA 1583 T TTTCA
                    TG CCTG TTTGTTTCC
                    AC GGAC AAACAAAGG
                     T TTC
GAM362 PRO0800 3' AAACAAAGAGACAGGAATTA 1852
                                          G
                                              Α
                    TAAT TCCTGTTTC TTTGTTT
                    ATTA AGGACAGAG AAACAAA
GAM362 LOC142779 3' GGAGTAACAAAATAGGACATTA 3050
                                               CATT
                    TAATGTCCTGTTT TGTT TCC
                    1111111111111 1111 1111
                    ATTACAGGATAAA ACAA AGG
                          TG
GAM362 LOC143274 5' GGAAACAAACAAAAAGGA 3053
                                         G CA
                    TCCT TTT TTTGTTTCC
                    AGGA AAA AAACAAAGG
                      _ AC
GAM362 LOC154089 3' AAACAAATACTGAGACAG 3186
                    CTGTTTCA TTTGTTT
                    GACAGAGT AAACAAA
                        CAT
GAM362 LOC169679 3' AGCATATGAAGACAGGACAT 3404
                                              _ T
```

ATGTCCTGTTT CAT TGTT

CAGGACAAA AGGCG AAGG

```
TACAGGACAGA GTA ACGA
                        A T
GAM362 LOC202052 5' GAAACAAATACCCAGAAGACA 3484
                                           TTTC
                    TGTC CTG ATTTGTTTC
                    ACAG GAC TAAACAAAG
                      AA CCA
GAM362 LOC256021 3' GAAACGAGAACAATGACATTA 3708
                                            C_ CAT
                    TAATGTC TGTTT TTGTTTC
                    ATTACAG ACAAG AGCAAAG
                       TΑ
GAM362 LOC91650 5' AAACAAAACATCTCAGGACAT 2765
                                            TTTCA
                    ATGTCCTG
                              TTTGTTT
                    TACAGGAC
                              AAACAAA
                       TCTACA
GAM362 LOC91752 5' AAGTCAAATAAAACAGGACA 2777
                                            С
                    TGTCCTGTTT ATTTG TTT
                    ACAGGACAAA TAAAC GAA
                        A T
GAM363 ARCN1 3' CCCATTTCCTTCCAGTCA 844
                                        GAAGT
                                                CA
                    TGATTGGA AGGAAA GG
                    ACTGACCT TCCTTT CC
                             AC
GAM363 CTSK
            3' TCCTACTTTGCTTCTCCACC 736
                                        AΤ
        CA
                     TG TGGAGA
                                 AGTAGGA
                    AC ACCTCT
                               TCATCCT
                     CC
                         CTTCGTT
                                        T___ A
GAM363 HMG20A 3' TCCTATTTCCCTGCCATCA 1800
                    TGAT GG GAAGTAGGA
                    ACTA CC CTTTATCCT
                      CCGT _
GAM363 PRDM2 3' TCCTGTTTCCCACCCAG 1415
                                       AGAA A
                    TTGG GT GGAAACAGGA
                    GACC CA CCTTTGTCCT
                        _ C
GAM363 RNMT
            3' CCTGCCTATCCTCTCCGATCA 1060
                                           A_ AAA
                    TGATTGGAGA GTAGG CAGG
                    ACTAGCCTCT TATCC GTCC
                        CC
GAM363 SCAP1
            3' TCCCACTCCCTACTTCTGCCA 1052
                                             AAACA
```

TGG AGAAGTAGG GGA

```
ACC TCTTCATCC CCT
                      G
                          CTCAC
GAM363 USH3A 5' CCTATTTTATTTCTCCATCA 2355 T
                                              AAC
                     TGAT GGAGAAGTAGGA AGG
                     ACTA CCTCTTTATTTT TCC
                            Α
GAM363 VAT1
            3' TCCTGTTTCCCACCTCCTTCTC 1292
                                           TA___
        C
                     GGAGAAG GGAAACAGGA
                     CCTCTTC CCTTTGTCCT
                       CTCCAC
GAM363 AIF1
           5' CCTGCTGAAAACCCTCCAGTCA 2297
                     TGATTGGAG AGTAGG
                     ACTGACCTC
                                TCGTCC
                        CCAAAAG
GAM363 CPLX1 3' CCTGTTTCTCCTCCATTCA 1317 T AAGTA
                     TGA TGGAG GGAAACAGG
                     ACT ACCTC TCTTTGTCC
                      T C___
GAM363 CXYorf1 3' CCTGTTCCCCACCTCCCGGCTC 3228
                                          AAAA
                     GA TTGG GA GT GG AACAGG
                     11 1111 11 11 11 111111
                     CT GGCC CT CA CC TTGTCC
                     CCCC
GAM363 FLJ12221 3' CCCACCCTTGCTCTCCAATTA 2637
                                            A AAACA
                     TGATTGGAGA GTAGG GG
                     ATTAACCTCT CGTTC CC
                         _ CCAC_
GAM363 FLJ20207 3' CCTGCCCTGCTTCCCCACCCA 1741
                                          AT A
                                                 AAA
                     TG TGG GAAGTAGG CAGG
                     AC ACC CTTCGTCC GTCC
                     CC C
                           C__
GAM363 FLJ22215 3' CCTGCCCCCTACCCTGTTCTCC 3715
                                                 AAA
                     GGAGAA GTAGG CAGG
                     CCTCTT CATCC GTCC
                       GTCC
                            CCC
GAM363 FLJ31547 3' TCCCATAATTTCTCCCGCAATC 2511
        Α
                     TGATT GGAGAAGT GGA
                     ACTAA CCTCTTTA CCT
                       CGC
                            ATAC
GAM363 HSCBCIP1 3' TCCTACCTATGTCTTCTCCAAT 3449
                                                  AAAC
                     ATTGGAGAAG TAGG AGGA
```

```
TGT A___
GAM363 KIAA0515 5' TCCTACCAGAACTCCTCCGATC 2670
                                           A A_ AAAC
        Α
                     TGATTGGAG AGT GG AGGA
                    ACTAGCCTC TCA CC TCCT
                        C AGA A
GAM363 KIAA1514 3' CCTGCTCAACTTCTCCA 1877
                                         A AAA
                    TGGAGAAGT GG CAGG
                    ACCTCTTCA CT GTCC
                        A C
GAM363 KIAA1553 3' TCCTCACTTCTCCATCCA 3544
                                       AΤ
                    TG TGGAGAAGT AGGA
                    AC ACCTCTTCA TCCT
                     CT
                          С
GAM363 KIAA1656 3' CCCACTTCCTTCCAGTCA 2730
                    TGATTGGA GAAGT GG
                    ACTGACCT CTTCA CC
                       TC C
GAM363 KIAA1877 3' CCTACCTTATTTCTCCAGCCA 2741
                                               AAAC
                                         AΤ
                    TG TGGAGAAGTAGG AGG
                    AC ACCTCTTTATTC TCC
                     CG
                            CA
GAM363 MTCH1 3' CCCGTCTACCCCTCCAGTCA 1493
                                           AA AAACA
                    TGATTGGAG GTAGG GG
                    ACTGACCTC CATCT CC
                        CC GC
                                          AA _ AAACA
GAM363 N-PAC 3' CCGCCCTCACCCCTCCAATC 2902
                    GATTGGAG GT AGG GG
                    CTAACCTC CA TCC
                       CC C CG
GAM363 SEMA4B 5' CCTGTTTCCCACCTCC
                                 2839
                                       AA A
                    GGAG GT GGAAACAGG
                    CCTC CA CCTTTGTCC
                       _ C
GAM363 SPRY1
            3' CCTGTTTCCCACCTTCTCT 2709
                                         TA
                    GGAGAAG GGAAACAGG
                    TCTCTTC CCTTTGTCC
                       CAC
GAM363 WS-3
            5' CCTGCCAGGCTCTCCAATC 1312
                                          A A_ AAA
```

GATTGGAGA GT GG CAGG

TAACCTCTTC ATCC TCCT

```
CTAACCTCT CG CC GTCC
                        _ GA ___
GAM363 LOC123242 5' TCTGTACCTTCTCCATCCA 3030 AT TAGGAA
                     TG TGGAGAAG ACAGG
                     AC ACCTCTTC TGTCT
                      CT
                           CA
GAM363 LOC127702 3' CCTGCCCACAACTTCTCCAAAC 3024 A
                                                A__ AAA
                     TG TTGGAGAAGT GG CAGG
                     AC AACCTCTTCA CC GTCC
                      Α
                          ACA C
GAM363 LOC146745 5' TCCTGCCACCATTTCTCCAACC 3099
                                                 A AAA
         Α
                     TG TTGGAGAAGT GG CAGGA
                     AC AACCTCTTTA CC GTCCT
                      С
                          ACC
GAM363 LOC147791 3' CCCATTCCCTAACCTCCAATC 3294
                                            AAG A CA
                     GATTGGAG TAGG AA GG
                     CTAACCTC ATCC TT CC
                        CA_ C AC
GAM363 LOC196892 3' TCCTGGTGATTCTTCTCCAATC 3417
                                            TAGGAAA
                     TGATTGGAGAAG CAGGA
                     ACTAACCTCTTC
                                   GTCCT
                          TTAGTG
                                            _ A A A A
GAM363 LOC200093 3' CCTGTTCCCCACCTCCCGGCTC 2648
                     GA TTGG GA GT GG AACAGG
                     CT GGCC CT CA CC TTGTCC
                      \mathsf{C} \mathsf{C} \mathsf{C} \mathsf{C}
GAM363 LOC201243 5' TCCTGCCACCATTTCTCCAACC 3426
                                            A AAA
        Α
                     TG TTGGAGAAGT GG CAGGA
                     AC AACCTCTTTA CC GTCCT
                          _ ACC
                      С
GAM363 LOC219404 3' CCTGCTCCCTACTTCCTGGCA 3606 A TG A AAA
                     TG T G GAAGTAGG CAGG
                     AC G C CTTCATCC GTCC
                      _GT_ CTC
GAM363 LOC222066 3' TCCTGCAAACCACCTTCTCCAA 3574
                                                TA AAA
        TCA
                      TGATTGGAGAAG GG CAGGA
                     ACTAACCTCTTC CC GTCCT
                         CA AAAC
GAM363 LOC253001 5' TCTGTACCTTCTCCATCCA 3698 AT
                                               TAGGAA
```

TG TGGAGAAG ACAGG

AC ACCTCTTC TGTCT CT CA____

GAM363 LOC91040 3' CCTGTTCCCCACCTCCCGGCTC 2700 _ A A A A

GA TTGG GA GT GG AACAGG

CT GGCC CT CA CC TTGTCC

 $\mathsf{C} \quad _ \; \mathsf{C} \; \; \mathsf{C} \; \; \mathsf{C}$